CALL FOR ACTION:

PRINCIPLES FOR HIGH-INTEGRITY INSETTING IN THE LAND SECTOR

Driving positive impacts for climate, nature, and people through corporate climate action

CONSERVATION INTERNATIONAL

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Endorsements

From the outset, the intention of this document has been to reflect a consensus across a wide range of organizations and lay the groundwork for ongoing collaboration towards a common vision. Accordingly, the findings, principles and recommendations have been shaped through extensive stakeholder engagement with a wide group of experts and practitioners across a range of relevant fields.

The following organizations are committed to working collaboratively to support the implementation of the principles proposed in this report going forward:

Acknowledgements

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The conceptualization, drafting, and development of the work was guided by an Advisory Group (bolded below), and was informed by multiple rounds of input via surveys, document reviews, interviews, and workshops involving a wide range of stakeholders from June 2024 through March 2025.

Contributing organizations and individuals

Bold indicates members of Advisory Group. *Indicates that this individual no longer works for this organization.
Note: not all organizations involved in consultations are listed.

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- American Forest Foundation – Nathan Truitt
- Anthesis – Marine Klobut*
- Barry Callebaut – Tilmann Silber
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- Regrow Ag – Jeff Seale, Lucia von Reusner
- SAI Platform – Robyn Cooper*, Dominik Klauser, Ying Wang
- Soil Association Exchange – Joseph Gridley, Louise Rezler
- Soil Capital – Andrew Voysey
- Solidaridad – Joel Brounen, Alex Amanya, Noura Hanna
- Solutions from the Land / farmer – Fred Yoder
- South Pole – Eduardo Cancino
- Starbucks – Alicia Saka*
- Systemiq/FOLU – Scarlett Benson, Marco Daldoss Pirri, Nathan Renneboog
- **The Nature Conservancy – Melissa Gallant, Gabriella Scolio**, Jacob Fritton
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- Unilever – Hannah Hislop, Mollie Liesner
- Value Change Initiative/Sustain CERT - Silvana Paniagua, Thomas Blackburn, Javiera Figueroa, Naomi Montenegro Navarro

- Varaha – Madhur Jain, Ankita Garg
- Verra - Jonathon Alcock, Stefan Jirka, Abigail Snyder*, Candace Vinke
- **World Business Council for Sustainable Development (WBCSD) – Kate Newbury-Hyde**, Lucie Smith
- WWF US – Christa Anderson, Martha Stevenson

We're very grateful to all those who participated in the consultation process and provided insightful input. We look forward to partnering with many of these participants to take the work recommended in this report forward.

1. Executive summary

Agriculture, forestry, and other land uses are responsible for nearly a quarter of total global anthropogenic greenhouse gas (GHG) emissions each year, with value chain emissions making up 92% of agri-food companies' carbon footprints. About half of this impact is from land use change and half is from land management. But the Forest, Land and Agriculture (FLAG) sector also holds significant potential for nature-based GHG emissions reductions and carbon removals. Companies can unlock this potential by combatting deforestation and conversion and promoting restoration and regenerative agriculture within their supply chains. While standards, regulation, and corporate responsibility have increased the sector's interest in realizing these solutions within their supply chains via "insetting", investment barriers and implementation challenges hinder progress.

This report proposes a definition and six accompanying principles for high-integrity GHG insetting (summarized below). Together, these outcomes support the creation of an enabling environment for companies to invest confidently in their supply chains, meet global goals to reduce FLAG sector emissions, while delivering positive impacts for nature and people within their sourcing landscapes. This work was developed by a coalition of partners over the course of eight months, based on engagement and input from more than 40 organizations (see Acknowledgments) and desk review of key standards (see Methodology). This engagement revealed the key opportunities and challenges insetting presents (see Section 5). The definition and principles proposed in this work intend to address these challenges and realize these opportunities.

The term insetting is used to describe actions within a company's supply chain that generate GHG emissions reductions and carbon storage and may also deliver positive impacts for nature and livelihoods (adapted from Abatable / IPI 2023).[1] In this report, we advocate for a definition of insetting which goes beyond current GHG accounting boundaries to include action on lands connected to a company's value chain (bio-physically, ecologically or socio-economically) and offer clear value chain benefits. Following this broader approach, insetting offers opportunities for companies to build a competitive advantage, weather regulatory changes, improve supply chain relationships, build supply chain resilience, and scale the impact of interventions through collective action. (See Section 4 for more detail)

In this work, we propose a definition and six principles for high-integrity insetting and then identify the key actions required to implement them. The principles aim to provide a collective vision for how to address the challenges and realize the opportunities identified during stakeholder engagement (see Figure 1 below and Section 6 for more detail). The actions highlight some key initiatives underway and suggest how companies, project developers, civil society organizations (CSOs), and standards developers can support this transition (see Table 1 below and Section 7 for more detail). In summary, the proposed principles and actions have two goals with separate timeframes:

1. Provide a blueprint for how leading companies can act now to maximize long-term impact for climate, nature, & people, despite uncertainty in corporate standards landscape.
2. Offer a collective vision to mainstream these principles in common practice by no later than 2030.

Realizing these goals requires collaborative action across many organizations to develop and implement tools and guidance operationalizing these principles and, ultimately, to embed them in the standards, policies, and regulations that drive corporate action.

Achieving high-integrity insetting is not just a necessity, it's an opportunity to drive meaningful change for businesses, communities, and ecosystems alike. The principles outlined in this report provide a vision, but their success depends on collective commitment from companies, civil society, and standard

[1]Abatable and IPI (2023), Addressing Scope 3: How insetting can be scaled to tackle supply chain emissions. Link

setters. Working together, we can build resilient supply chains, enhance environmental and social outcomes, and make high-integrity insetting common practice. The path forward is clear—now is the time to act.

Definitions proposed in this report
(see Section 4 for more detail)

Insetting includes interventions **connected bio-physically, ecologically and/or socio-economically** to a company's value chain which generate greenhouse gas emissions reductions and carbon storage.

High-integrity insetting creates positive impacts for, and improves resilience of producers, companies, communities, landscapes and ecosystems (*adapted from Abatable / IPI 2023*).

Table 1: Key messages of this report for target stakeholders
(see Section 7 for more detail)

Audience	Key messages
Companies	**SCALE HIGH-INTEGRITY INSETTING PROJECTS NOW:** Companies should not wait until greenhouse gas (GHG) accounting guidance is finalized to start investing collectively and at scale in projects within and near their supply chains. Projects should deliver positive climate outcomes while improving the resilience of communities and nature their operations depend on. Companies should remain transparent in the impacts of projects, and the challenges faced, collaborating with Civil Society Organizations (CSOs) and other stakeholders to remove barriers and scale impact holistically.
Standards and guidance	**CLOSE GUIDANCE AND ACCOUNTING STANDARDS GAPS:** We encourage organizations developing standards and frameworks to incentivize collective investments in supply sheds and broader sourcing landscapes, addressing current gaps and supporting FLAG sector transformation. This could be accomplished through robust incentives for whole-of-farm and 'near value chain' actions, especially those which improve supply chain resilience. This action could be incentivized as beyond value chain mitigation (BVCM), neutralization, or indirect mitigation. Corporate standards should also recognize the intersectionality between climate, nature, & people impact, and incentivize holistic outcomes from GHG projects.
Project developers	**CONNECT COMPANIES & COMMUNITIES FOR IMPACT:** Project developers should support companies to develop projects that result in real supply chain, landscape and FLAG sector impact. This includes working closely with local stakeholders to ensure projects address local needs to ensure durability of outcomes. Project developers should provide input to organizations developing corporate standards and frameworks by communicating on-the-ground challenges that hinder scale and suggesting pragmatic approaches for addressing them.
Civil Society Organizations (CSOs)	**ADVOCATE AND DEMONSTRATE THE BENEFITS:** CSOs should create an environment that encourages companies to support the FLAG sector transformation required to achieve global goals. CSOs should provide evidence to demonstrate the benefits and business case for prioritizing holistic impacts, provide practical guidance to achieve these impacts, and develop demonstration projects for landscape scale activities. They should also support the creation of credible and pragmatic standards that bridge GHG accounting limitations and incentivize all companies to invest in high-integrity insetting at scale.

Figure 1: Principles for High-Integrity Insetting
(see Section 6 for more detail)

FLAG Sector Transformation
Companies invest within and near their value chains to support the transformation of the FLAG sector and their sourcing landscapes and realize the benefits that natural climate solutions can offer to the climate, communities and biodiversity their value chains depend on.

Principle 1 **Prioritize climate impact**	**Principle 2** **Collaborate in supply sheds & landscapes**
GHG accounting and FLAG targets are used as tools to drive real climate impact on the ground. Companies prioritize interventions that deliver the largest climate impact, within and near their value chains and communicate when GHG accounting frameworks encourage activities which have limited impact.	Where companies have overlapping supply chains, organizations should collaborate in shared sourcing regions and landscapes to amplify impact, reduce risk, share costs, and deliver holistic outcomes for people & nature. Companies should also collaborate with non-value chain actors to support landscape-wide change.

Just and Nature-Positive Transition
Companies partner with and support producers to transform their value chains and design projects to maximize benefits for nature and people.

Principle 3 **Deliver shared value for people**	**Principle 4** **Deliver positive outcomes for nature**
Projects are designed and delivered in partnership with producers and communities, respecting Indigenous rights, human rights, gender equality, labor standards, and land rights, while ensuring fair wages and equitable benefit sharing for all.	Projects measurably benefit nature, including water and biodiversity, and realize the synergies between climate and nature outcomes, including tackling deforestation and conversion of natural ecosystems.

Impact and Efficiency
Companies pragmatically leverage frameworks to resource interventions and strategies with a proven positive impact on the ground, and implement adequate monitoring, reporting, & verification (MRV) to ensure robust claims, while minimizing undue resource burden across the supply chain.

Principle 5 **Credible claims**	**Principle 6** **Efficient MRV**
Standards support companies to claim GHG, non-GHG and landscape-level outcomes, supporting a pragmatic and credible approach to accounting that incentivizes impactful investment.	MRV ensures robust claims while minimizing the resource burden and maximizing the value of data collected for actors across the supply chain. Data collection should support the goals and needs of producers and local communities, with appropriate compensation for data collection efforts.

2. Introduction

The global context for agricultural emissions

Agriculture, forestry and other land use, is responsible for nearly a quarter of total global anthropogenic greenhouse gas (GHG) emissions each year. Roughly half of this impact is a result of deforestation and conversion of natural ecosystems for agricultural or forestry production and half is due to other on-farm management activities.[2] For businesses operating in the agri-food sector, emissions from agriculture and land (value chain, or scope 3 emissions) dominate their GHG footprints at an average of 92% of total emissions.[3]

But agriculture also holds significant potential as a climate solution. The food and agriculture sector has the potential to achieve up to 9 GtCO2e of climate mitigation per year by 2030 with an investment of about 2% of revenues.[4] Corporate emissions reductions targets are a key tool to unlock this investment and impact. The introduction of the Science Based Targets initiative (SBTi)'s Forest, Land and Agriculture (FLAG) guidance has increased action from companies seeking to reduce their land-related value chain emissions, including combatting deforestation & conversion of natural ecosystems, and increase carbon sequestration from land. About 40% of global market cap is covered by businesses committed through SBTi[5], including more than 1,000 agriculture-related companies.[6] The Greenhouse Gas Protocol's (GHGP) development of the Land Sector and Removals Guidance (LSRG)[7] will give companies a consistent framework to measure these emissions and removals, representing immense progress (despite challenges with its delayed release and stringency of draft requirements).

However, implementation challenges have limited action to date. Collaborative action is critical to achieve the transformational changes needed to realize the emissions reduction and removals potential required for corporate and global goals. While existing frameworks promote action in fixed, traceable, strongly-linked supply chains, there are few defined pathways for FLAG sector companies to collaborate and collectively invest across overlapping sourcing landscapes. These challenges hinder investment in climate projects and ambition of corporate commitments.

Equally important, climate-oriented value chain interventions, when designed well, can support the livelihoods and resilience of producing communities, improve the state of nature in sourcing landscapes, and reduce supply chain risks. Failing to consider impacts to people and nature in project selection, design, & delivery can result in counterproductive and short-lived projects. Developing projects in collaboration with local stakeholders ensures interventions leverage the best local knowledge, outcomes meet the needs of the affected communities, and that project outcomes will be durable. Nature and social impact frameworks are maturing but adoption remains years behind GHG standards, which have limited requirements for how people and nature are incorporated in climate strategies.

A set of principles to catalyze collaborative action on value chain emissions reductions and removals

This report seeks to respond to investment barriers and implementation challenges by proposing a set of principles to guide companies in establishing high-integrity FLAG sector value chain carbon reductions and removals (also known as "insetting", see Section 4 for more detail). These principles apply to both interventions combatting land use change (LUC) as well as those improving land management activities, while recognizing the GHG accounting differences between these two types of action.

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[2] IPCC Sixth Assessment Report, 2022. Link
[3] Hadziosmanovic, Rahimi and Bhatia, 2022, Trends showing companies are ready for scope 3 reporting with US climate disclosure rule, Link
[4] FOLU 2024, Future Fit Food and Agriculture, Link
[5] SBTi Monitoring Report 2023. Link
[6] SBTI Target Dashboard [online]. Accessed February 2025. Link
[7] The GHGP's Land Sector and Removals Guidance is currently in draft format, with a final version expected to be issued in Q2-Q4 2025.

Global political shifts have cooled climate commitments of some companies and countries. The US administration has stepped away from climate-friendly efforts, the European Union (EU) has delayed its Carbon Border Adjustment Mechanism (CBAM), investors are more sensitive to risks of green investments, and progress has slowed on global carbon pricing. Despite these shifts, the key frameworks driving corporate climate action have continued to mature, with SBTi adding much-needed flexibility in is update to the Net Zero standard,[8] GHGP updating its key standards, and guidance and standards from many other enabling actors clarifying pathways for action (e.g. Value Change Initiative, Verra, Social Carbon). Our proposed principles offer a framework for companies and enabling environment stakeholders (including standards-setters) on how to maximize the impact and minimize the risk of corporate value chain investments. They help companies realize the opportunity for insetting projects to increase competitive advantage, build supply chain resilience, promote brand reputation, and minimize regulatory risks, all while delivering meaningful outcomes for climate, people, and nature.

The principles aim to both offer a blueprint for how to act today and catalyze collaboration around a collective vision for the future potential of insetting, which fully realizes the opportunity for this relatively novel form of climate action. The principles are accompanied by a set of recommended individual and collaborative actions for target stakeholder groups, intended to support organizations to take first steps towards achieving the principles.

The report has been prepared through extensive research and stakeholder engagement (see Appendix 2 for Methodology) led by Conservation International, supported by 3keel, in close collaboration with an Advisory Group including partners from Environmental Defense Fund, IDH, International Platform for Insetting, Proforest, The Nature Conservancy, and World Business Council for Sustainable Development. In addition, more than 40 other organizations made significant contributions, including those listed in the Acknowledgements section.

As discussed further in Section 6, this report complements recent research funded by the UK Government Department for Energy Security and Net Zero (DESNZ) and Department for Environment, Food, and Rural Affairs (Defra) entitled 'Addressing agricultural scope 3 emissions: Best-practice principles for Within Value Chain Mitigation' (published in January 2025). This work identifies principles and recommendations for best practice in reducing and removing FLAG-sector Scope 3 emissions. The Defra and DESNZ research focused exclusively on actions within the spatial boundaries identified by the GHGP LSRG, but the stakeholder research revealed similar findings and yielded a similar set of principles for best practice. This parallel work was also delivered by 3Keel, Conservation International contributed via an Advisory Group role and a DESNZ representative participated in the consultation process for this report.

[8] The SBTi Net Zero Standard v2 draft "acknowledges challenges related to traceability and data quality, allowing for interventions at the activity-pool level (e.g., supply sheds) when direct traceability to specific emission sources is not feasible. Additionally, this draft standard recognizes the use of indirect mitigation approaches (e.g., book-and-claim commodity certificates) where direct traceability is not possible or where persistent barriers prevent mitigation at the source." Link

3. Purpose of this report

Within this report, we propose a definition (set out in Section 4) and six accompanying principles for high-integrity insetting (set out in Section 6). Together the definition and principles aim to enable companies to invest confidently in their supply chains, meet global goals to reduce FLAG sector emissions, and deliver positive impacts for nature and people within and across sourcing landscapes.

The six principles described above build on Proforest's principles for FLAG sector transformation, and provide recommendations specific to insetting action, aiming to create alignment and a shared vision for value chain activities. They are intended for use by supply chain companies and project developers implementing insetting projects, as well as organizations with responsibility for supporting an enabling environment for companies to act (standard setters, NGOs, guidance developers) (Figure 2). They provide recommendations to support the project aims of:

1. Advocating for more clearly defined boundaries and incentives for 'near value chain' activities within climate standards.
2. Defining and incentivizing high-integrity climate action within and 'near' value chains, including integration of nature and people.

The principles are intended to inform action across two timeframes:

Now: Provide companies guidelines for how to take high-integrity insetting action now with the aim of rebuffing GHG accounting uncertainty that may otherwise delay investment. Advocate for the creation of clear incentives and recognition for 'near' value chain action and integration of people and nature within climate strategies.

By 2030, at the latest: Provide a clear long-term vision, offering direction for a wider group of actors to co-create an enabling environment for high-integrity insetting action.

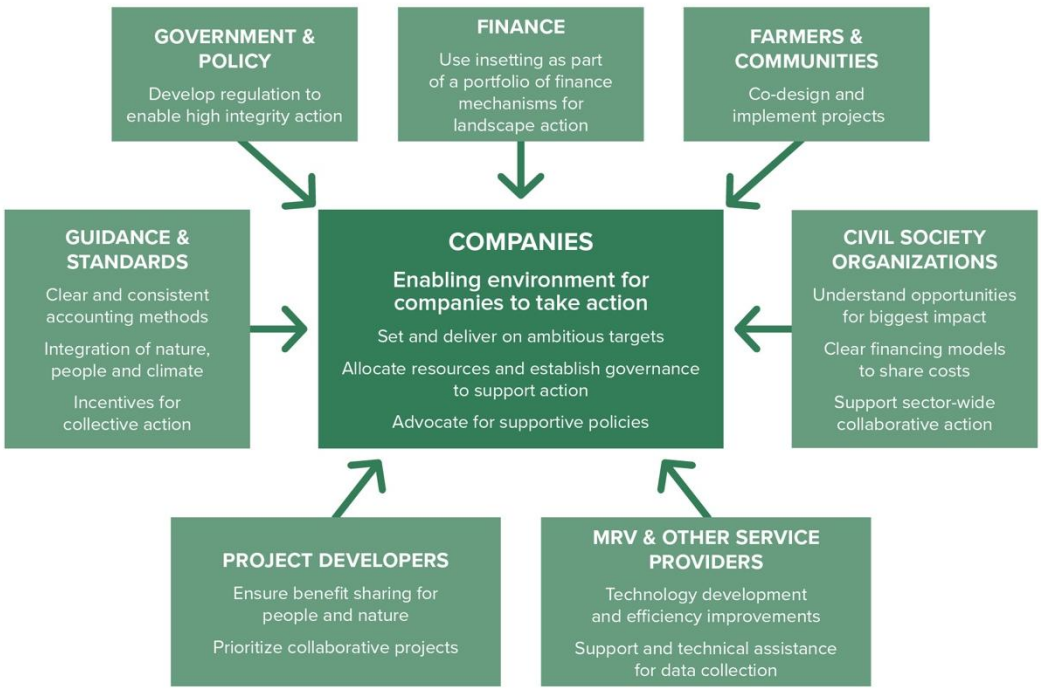

Figure 2: Illustration of the responsibilities of different actors in supporting an enabling environment for companies and project developers to take high-integrity insetting action. This report focuses primarily on actions for civil society organizations (CSOs), MRV providers, guidance and standards, companies and project developers, but considers the role of all groups as part of the wider enabling environment.

The report findings and recommendations have been developed from engagement with over 40 stakeholders, with representatives from companies, project developers, standards setters, representatives of producers and Indigenous Peoples organizations and civil society organizations (CSOs). Engagement was led by an Advisory Group, described further in Section 2 above.

Stakeholder engagement initially took place through surveys and interviews. Initial findings and draft principles were presented during a hybrid workshop at Climate Week NYC (September 2024) to key stakeholders for feedback and development and later drafts socialized with this group for further feedback. Input from stakeholders was complemented with desk-based review of existing standards and framework to understand the role of frameworks and the opportunities and challenges these present for high-integrity insetting.

Focus of this report: (see Appendix 1 for further detail)

1. Centered on the **Forestry, Land use, & Agriculture (FLAG) sector**.
2. Includes **both emissions reductions and removals**, including from land use change
3. Centered on GHG mitigation interventions within supply chain production landscapes that deliver impacts for people and nature, including interventions both **within and beyond GHG accounting boundaries for traceability, proximity, attribution, & allocation**.
4. Considers approaches that use both **intervention (project-based)** and **inventory** methods for quantification of GHG impacts.
5. Encourages the **integration of nature, people, and resilience** into corporate climate strategies.

4. The boundaries of high-integrity insetting

The boundaries for insetting and within value chain mitigation are currently unclear. One of the key challenges identified through stakeholder engagement is understanding and defining the boundaries for insetting and how they relate to corporate GHG footprint boundaries. Currently, insetting is broadly used to describe actions within a company's supply chain which generate greenhouse gas emissions reductions and carbon storage and may also deliver positive impacts for nature and livelihoods (adapted from Abatable / IPI 2023). However, defining the boundaries of what is *within* a company's value chain and therefore countable towards their GHG footprint and targets can be challenging. In addition, boundaries may differ between actions designed to reduce emissions from land management (such as soil management, agroforestry, or restoration) and actions designed to reduce emissions from land use change, as these types of emissions are accounted for using different GHG accounting methodologies.

Current GHGP accounting rules set out boundaries for actions which can be included within a company's scope 3 FLAG inventory i.e., what is considered within value chain mitigation (WVCM). Table 2 and Figure 3 (below) demonstrate these key boundaries and offer examples.

These boundaries have limited corporate investment in key GHG mitigation actions. While clear boundaries are needed to support robust and comparable GHG inventories across companies and sectors, stakeholder feedback indicated they can undermine the investment case for action, create uncertainty about what companies can count towards their GHG targets, and generally are misaligned with the realities of agricultural supply chains. According to an SBTi survey, addressing Scope 3 emissions was the number one barrier to meeting their climate goal.[9] Further, current boundaries can disincentivize activities taking place in broader sourcing regions with tangible supply chain benefits, and landscape-wide actions are not currently claimable. For example, these boundaries can limit the business case for GHG reductions and removals activities within diverse, multi-product agricultural systems; GHG sequestering restoration actions on non-productive areas of farms; or on adjacent lands outside of farm boundaries (see Figure 3).

Non-GHG impacts of interventions are often critical to success but are left out of corporate climate action frameworks. Existing corporate climate action frameworks (including GHGP and SBTi) largely fail to recognize key non-GHG impacts mitigation actions can have. Nature impacts, resilience to climate shocks, and social benefits are often critical to producers, local communities, and project durability, but there is currently a lack of clear methodologies for accounting for these outcomes. To fully realize the potential for GHG mitigation actions to deliver benefits for nature and people, as well as climate, they must be embedded in the key frameworks driving corporate action. Work is underway to both develop dedicated frameworks for corporate nature and social impacts (SBTN, TNFD, TISFD), but uptake is multiple years behind climate. There may be a case to embed consideration of these non-GHG impacts in key corporate climate frameworks (e.g., GHGP, SBTi), as has been done in many of the GHG methodologies for the carbon market.[10]

While this work is focused on bringing consideration of non-GHG impacts into often siloed GHG-focused insetting strategies, companies should consider wherever possible how to design their nature-based supply chain actions to serve the needs of climate, nature & people from the start. As companies move towards more integrated planning across these dimensions, they should shift towards this holistic-first approach, which some have termed "Nature-based Insetting" or "NbS Insetting".[11]

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[9] Science Based Targets. (2024, March 7). Final campaign evaluation report published, including commitments removed - Science Based Targets. Link.

[10] Many carbon crediting programs embed safeguards or dedicated outcome requirements for nature and people in their methodologies, including Verra, Gold Standard, Plan Vivo, Social Carbon, and many others. While many of these requirements also have relevance for Within Value Chain Mitigation (WVCM), but they are lacking in existing standards. SBTi's BVCM paper includes co-benefits and social justice as one of the principles for prioritization, but incentives for BVCM remain weak.

[11] Briefing Paper: Delivering More by Insetting Through Nature-Based Solutions. (2024) Link.

Table 2: Boundaries for Within Value Chain Mitigation as currently understood from the Greenhouse Gas Protocol draft Land Sector and Removals guidance and Value Change Initiative guidance (developed in collaboration with GHGP). *Proximity* is a term introduced in this report and *allocation* and *attribution* align to use in Verra's draft Scope 3 Standard.

Boundary	Examples	Degree to which action is accountable in a company's GHG footprint under current GHG accounting rules
Proximity to value chain *e.g., did action take place on-plot, on-farm, or off-farm in connected landscape?*	**Action on-plot**: implementation of regenerative agriculture practices.	Accountable under current GHG accounting rules
	Action on-farm: planting hedgerows and non-productive field margins (land management) or requiring suppliers to adhere to a no-deforestation policy, preventing clearance of forest on the farm (land use change).	May be accountable for land management actions, pending safeguards requirement (e.g., on the size of area planted relative to the productive area on farm) Accountable for land use change actions
	Action off-farm: reforestation projects in plot adjacent to agricultural land (land management) or protecting forests near productive areas to reduce land use change in jurisdictions where the company operates or sources (land use change).	Not accountable for land management actions May be accountable for land use change actions depending on land use change accounting approach.[12]
Traceability to value chain *e.g., can the buyer trace the product they procured to the plot, farm, sourcing region, or only the broader jurisdiction where the action took place?*	**Traceable to the farm:** traceability to the specific land management unit or harvested area within a land management unit. *e.g., a bread retailer funds a regenerative agriculture project on specific farms or fields it can trace its purchased wheat back to.*	Accountable under current GHG accounting rules
	Traceable to the sourcing region: traceability to the first point of collection or processing facility *e.g., A confectionary company funds tree planting & composting projects (land management) on palm oil farms and deforestation reduction programs (land use change) in the region it buys from; they can't trace their palm oil to specific farms, but they can trace to the mill which buys from a specific set of farms in a region.*	May be accountable for land management actions either via reduced emissions factor for the entire sourcing region or as separate market-based impact if meets safeguard requirements Partially accountable for land use change actions under current GHG accounting rules as impact is spread across entire sourcing region

[12] Partially accountable if company is using statistical LUC (sLUC) or jurisdictional direct LUC (jdLUC) to calculate land use change emissions, as these actions will reduce LUC in broader landscape. Not directly accountable if company is using direct LUC (dLUC) method, but these actions can reduce the risk of new LUC emissions entering the supply chain (and increasing GHG footprint) in the future.

	Traceable to jurisdiction: traceability only to the country, state, or province from which a product is sourced *e.g., A nut butter manufacturer funds land management and LUC-reduction projects on peanut farms in Argentina; they purchase peanuts from Argentina but are unable to identify specific sourcing region.*	Not accountable for land management actions May be accountable for land use change actions
Attribution to value chain *e.g., was the purchased good grown within a multi-crop production system like crop rotation or intercropping?*	**Crop rotation**: purchased crop (e.g., wheat) grown in rotation with other crops which are sold to other buyers (e.g., soya).	Partially accountable: The company is only able to claim GHG impacts attributed to the purchased crop (e.g., wheat). The remaining impacts are attributed to the other crops (e.g., soya)
	Intercropping: purchased crop (e.g., maize) grown on the same land as another crop (e.g., soya) that is sold to other buyers.	Partially accountable: The company is only able to claim GHG impacts attributed to the purchased crop (e.g., maize), creating accounting challenges, particularly as leguminous crops like soya are more likely to contribute to carbon sequestration.
Allocation to value chain: *e.g., is the final product just one of the co-products coming from a single crop?*	**Co-products:** company one co-products from the crop grown (e.g., soy oil from soya), and the remaining co-product(s) (e.g., soy meal) are sold to other buyers.	Partially accountable: The company can only claim the carbon outcomes allocated to the co-product(s) it purchases. This allocation may be developed using mass-based approaches or economic allocation.

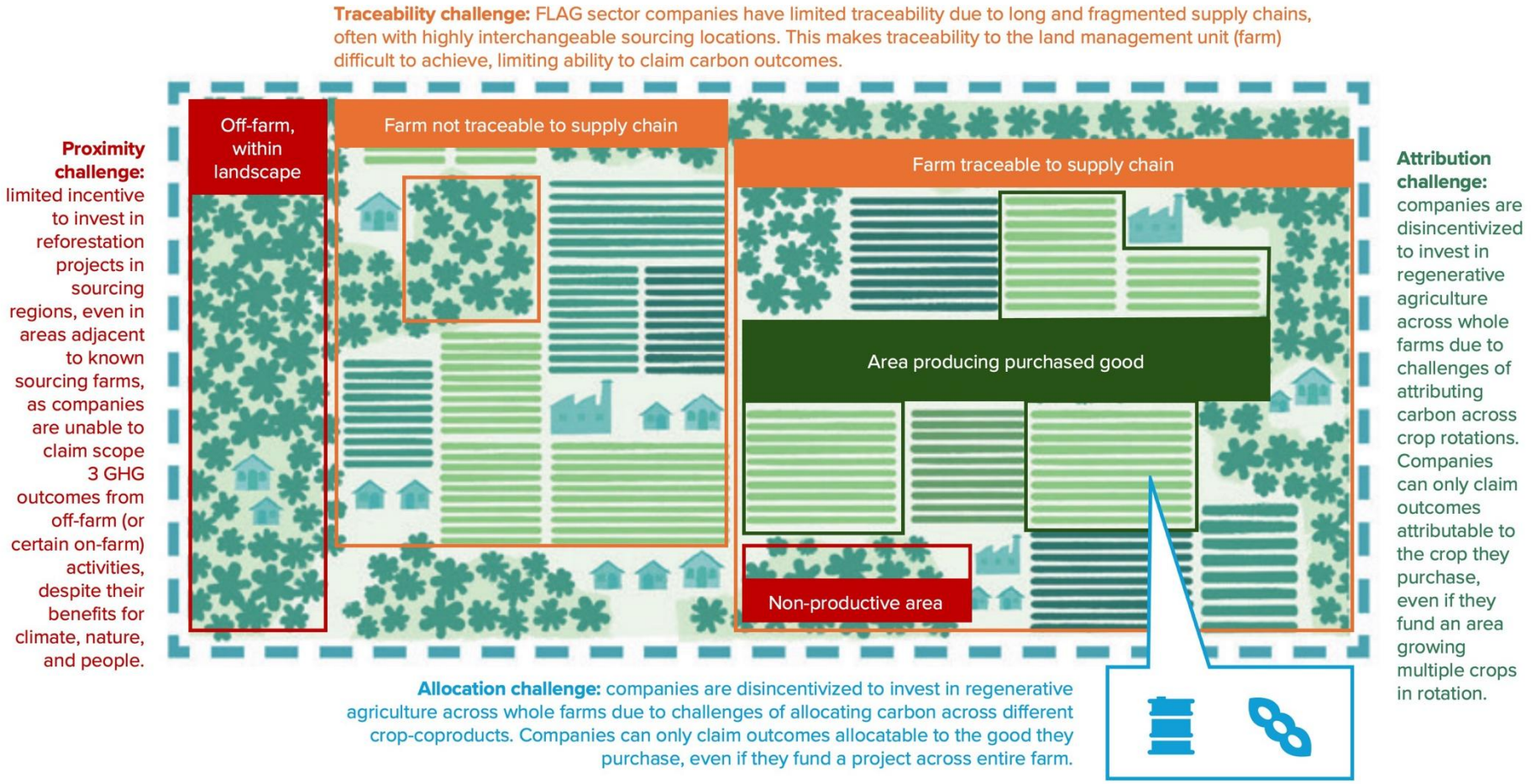

Figure 3: Examples of challenges of attribution, traceability and proximity associated with current GHG accounting rules. The definition of insetting used in this report advocates for insetting boundaries which overcome these challenges to incentivize a mosaic of interventions across a landscape, promoting impacts for local ecosystems and communities. See Appendix 1 for a more detailed version of this figure with further examples and explanation. Adapted from Proforest (2019).

Insetting can transcend these boundaries. The following definitions proposed in this report are a first step to address the blind spots in existing GHG accounting frameworks by recognizing the potential for action within connected landscapes and non-GHG impacts. Figure 4 clarifies how insetting relates to existing GHG frameworks.

Definitions proposed in this report:

Insetting includes interventions **connected bio-physically, ecologically and/or socio-economically** to a company's value chain which generate greenhouse gas emissions reductions and carbon storage.

High-integrity insetting creates positive impacts for, and improves resilience of producers, companies, communities, landscapes and ecosystems. *(adapted from Abatable / IPI 2023)*

Creating clear incentives for scaled value chain climate action requires expanding GHG accounting boundaries to better recognize and reward holistic investments.

Much work is already underway to define approaches to managing GHG accounting challenges of accounting for value chain interventions. The Value Change Initiative (VCI) is clarifying approaches for navigating interactions between GHG inventory and intervention accounting,[13] practically implementing supply sheds, and attribution/allocation challenges (e.g., across a crop rotations or between co-products). Companies are testing guidance on existing projects and industry groups are developing sector-specific GHG accounting approaches. Geospatial initiatives and consultants are improving methodologies for accounting for land use change interventions using a range of statistical and empirical approaches.

However, the strict boundaries discussed above continue to undermine the investment case for leading companies who are asked to shoulder the entire investment GHG interventions but only claim a fraction of the impact towards their scope 3 target.[14] Additional work is needed to define boundaries and accounting approaches for activities that have a very real value chain connection but may fall outside of the proximity, traceability, attribution, and allocation boundaries discussed above in Table 2. We believe climate standards should provide clear reporting frameworks and incentive structures for these actions to support the business case for holistic and scaled insetting action.

To enable this shift, we must first clearly define boundaries and safeguards for these 'near' value chain actions, then incorporate them within existing frameworks to establish a clear incentive for their implementation. One approach could be to expand the GHG accounting boundaries within the GHG Protocol to include these activities in corporate GHG inventories (e.g., scope 3). This requires overcoming significant GHG inventory accounting challenges and may increase complexity and hinder transparency. Alternatively, this set of activities could be separately accounted for as *indirect mitigation*, a newly defined area of action included in SBTi's draft updated Net Zero standard the focus of the AIM Platform. Another option would be to include this action in a new *'near* value chain mitigation' category of investments which are reported as a clearly defined and incentivized subset of beyond value chain mitigation (BVCM) or neutralization (removals) action. Figure 4 illustrates what this future state could look like and how insetting could fit into the driving frameworks. One powerful incentive could be allowing these 'near value chain' impacts to count towards a company's scope 3 SBTi target, with

[13] See Appendix 1 for discussion of the differences between inventory and intervention accounting.

[14] Under SBTi's framework, the impact which sits outside of these boundaries can be claimed towards neutralization targets (removals-only) and/or Beyond Value Chain Mitigation (BVCM) targets. However, to date the incentives for both of these complementary action areas are far lower than for reducing the company's scope 1, 2, or 3 GHG footprint. SBTi's draft v2 Net Zero standard proposes multiple changes to increase this incentive and also introduces a new category of action, indirect mitigation which may

appropriate guardrails. For example, SBTi could allow up to some percentage of scope 3 action to be accomplished through these actions and reduce this allowance over time as more and more agriculture-sector actors contribute investment. If designed well, SBTi's revised Net Zero Standard could provide much of the lacking incentive with their introduction of activity pools, indirect mitigation, near-term removals targets, and increased recognition for BVCM. Additional work is needed to define the details required to enact such a framework[15] and the authors and partners of this report are ready to support this process.

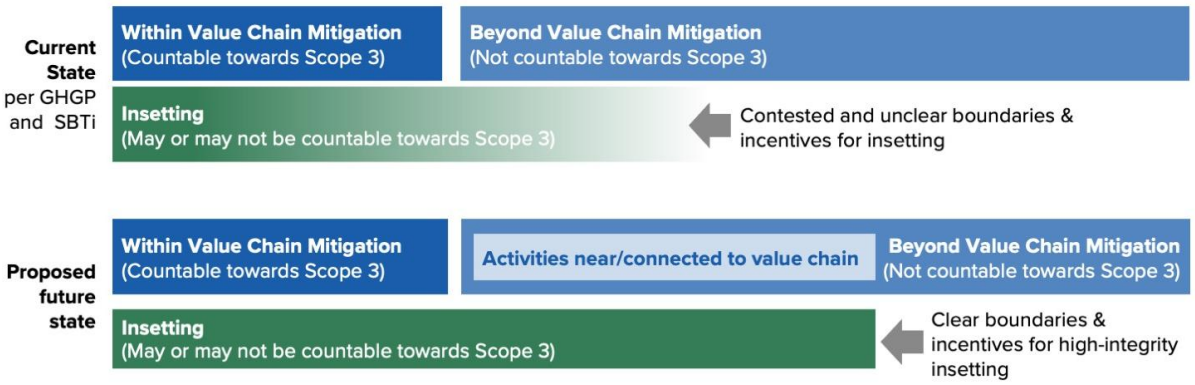

Figure 4: Current state of insetting definition, with lack of clarity on value chain boundaries, and uncertainty of what is countable under current GHG accounting rules, vs. the future state for insetting as set out in the vision of this report. In the future state there is a clear, incentivized category of action established for actions with clear value chain connection but which do not meet current accounting criteria (e.g., traceability, attribution, allocation, or proximity). Additional work is needed to define clearly what activities should be considered 'near/connected to the value chain'. Figure by Conservation International.

Defining and incentivizing 'near value chain' action can unlock investment in projects that provide lasting benefits for climate, nature, and people. For example, allowing companies to "count" the impact of actions across all crop rotations, rather than the one rotation they buy, will increase finance to transition to more regenerative and diverse agricultural systems which are more resilient, profitable, and supportive of biodiversity. Another example, allowing companies to "count" the sequestration impact of restoring forests in watersheds supplying farms in their supply chains, can improve the business case for GHG projects that deliver holistic benefits for communities and local ecosystems and break down barriers between sometimes siloed action areas (climate mitigation / water /climate adaptation). Recognition of these 'near value chain' actions is key to support FLAG sector transformation.

The principles outlined in this report describe this vision and a set of specific stakeholder actions to advocate for clearer boundaries and best practice for 'near value chain' actions. High-integrity insetting includes consideration of non-GHG outcomes in project selection, design, and implementation, as is shown in Figure 5. These non-GHG outcomes are core enabling conditions for GHG outcomes, not as a substitute for the urgency of GHG reductions and removals. Non-GHG outcomes for nature and people can directly support durability, equity, and holistic outcomes from climate interventions.

[15] For example, extending the proximity boundary may require changes to SBTi's FLAG-sector pathways. SBTi's FLAG target pathways currently exclude restoration activities outside of working lands, so companies who want to include significant off-farm restoration within their target may have to use an altered FLAG target with extended boundaries (and higher ambition).

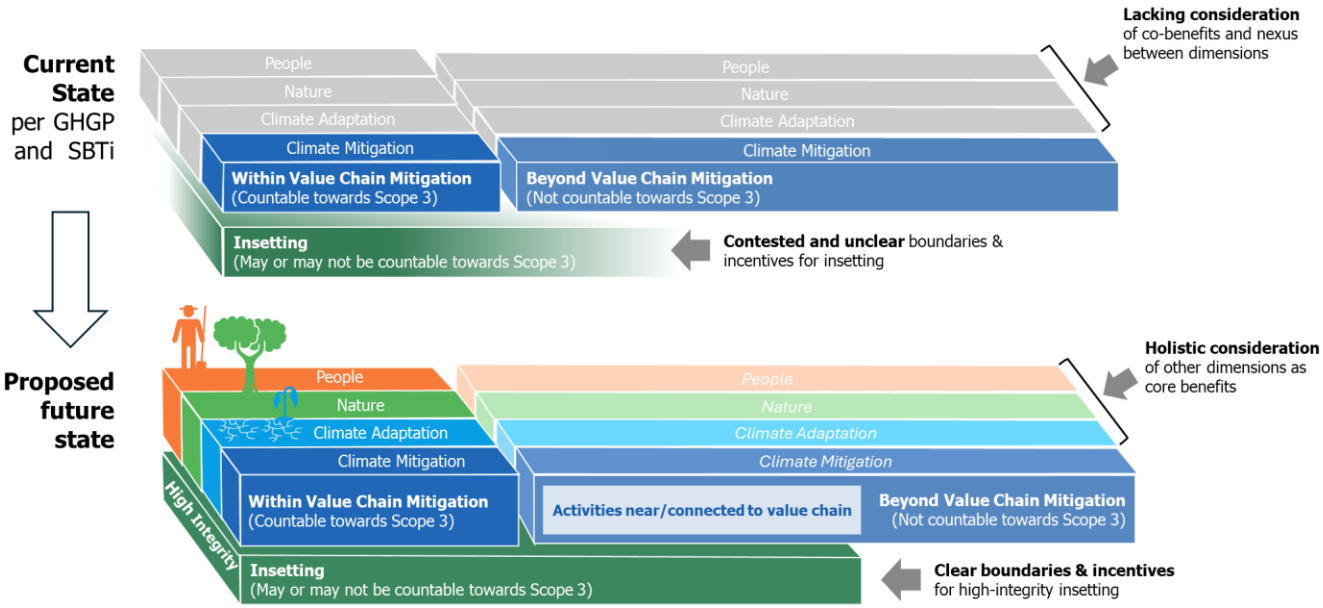

Figure 5: Expansion of Figure 4 to demonstrate the full vision expressed by this report and how high-integrity insetting includes consideration of non-GHG impacts. Figure by Conservation International.

5. Opportunities & challenges for high-integrity insetting

Stakeholder engagement and desk research revealed challenges and opportunities for insetting. This included challenges associated with current scope 3 accounting boundaries and opportunities available from the adoption of a broader category of 'near value chain' actions. Companies broadly understand the opportunities for taking collaborative action in wider sourcing landscapes, but lacking enabling environment make investment risky (e.g., unclear boundaries and incentives for 'near value chain' activities make it difficult to make business case for these investments).

Figure 6 below offers some specific examples of the challenges and opportunities associated with insetting, as identified by stakeholders from companies, project developers and standards setters. The following sections dive into these challenges and opportunities in additional detail. The six principles for high-integrity insetting proposed in this report are built from these opportunities and aim to deliver solutions to current challenges.

Figure 6: Examples of feedback through stakeholder engagement describing opportunities (blue) and challenges (red) for insetting

"Knowing [practice changes] guarantee a value add is exciting for farmers, and farmers are curious about how to benefit their systems. [...insetting] allows companies to invest in their farmers, while also claiming the benefits of a practice"
Producer representative

"Most indigenous producers are selling into commodity supply chains […] tribal communities are constantly trying to engage and collaborate with nature."
Tribal community representative

"…insetting provides opportunities to solve global and local problems collaboratively"
Project developer

"Individual company goals are in the service of societal and planetary goals […] but current frameworks incentive targets only attributable to an individual company"
International supply chain company

"Many effective programs […] do not receive the same investment as carbon projects because impacts can't be 'claimed'"
International Retailer

"Project developers aren't always aware of the unique land status and restrictions of Indian country [...] this is why it is so important to have Indians in roles developing these projects"
Tribal community representative

A. Opportunities

With the right frameworks in place, insetting could speed and smooth the transition to a more climate-, people-, and nature-friendly FLAG sector, and improve collaboration across company value chains.

Box 1: Insetting opportunities

The 40+ stakeholders consulted in this report identified the following opportunities for insetting, if implemented correctly:

- **Promote climate and healthy ecosystems**, including reduction in GHG emissions, increased carbon sequestration potential, increased soil health, restoration of water cycles and avoided forest and biodiversity loss
- **Provide a competitive advantage** through improved productivity, resilience and stable supply in the face of growing climate and nature risks
- **Get ahead of the curve** through taking a proactive response to regulatory drivers, including requirements for disclosure of GHG emissions, and requirements for disclosure of environmental and social impacts more broadly
- **Improve supply chain relationships:** build trust and transparency, and incorporate shared visions and values across all stages of the value chain
- **Create incentives** for farmers and producers to transition to regenerative agriculture, while **supporting livelihoods and communities**. Appropriate integration of producers, local communities, and Indigenous Peoples improves the success of projects, reducing costs and increasing durability of outcomes in the long term
- **Support companies to achieve their scope 3 targets,** as well as social or nature-related targets (including targets for deforestation and conversion free supply chains)
- **Scale the impact of interventions through collective action,** when used with diverse financing mechanisms, insetting offers the potential to deliver sector- and landscape-wide outcomes and facilitate collaboration in shared landscapes

Box 2: Opportunities in Indigenous Peoples and Local Community (IP and LC) Territories

Initial estimates suggest approximately 20% of agriculture-related natural climate solutions sit within Indigenous Peoples and local community territories.[16] While many of these groups are culturally supportive of natural climate solutions, engagement of these groups on insetting has been limited to date. As a result, standards and project developers are unaware of their unique challenges and have been unable to benefit from their partnership. Full, effective, and appropriate inclusion of Indigenous Peoples and local community groups is essential to realize the potential for insetting to deliver positive outcomes for climate, nature, and people. Through this project, we have conducted initial engagement with a few IPs and LCs representatives and communities. However, additional engagement and tailoring of this effort to their unique needs is needed, and Conservation International plans to carry out further stakeholder engagement over the coming months to ensure IP and LC perspectives are fully incorporated in this work.

[16] Initial results from parallel project led by Conservation International to map the natural climate solutions potential (tCO_2e/year) of 9 different solutions across 20 commodity supply chains. Results to be published later in 2025.

B. Challenges

Beyond the challenges of the boundaries outlined in Section 4 above, remaining barriers for insetting include:

- Balancing the benefits and limitations of inventory vs. intervention accounting methods (see Appendix
    - Verified intervention methods generally have high primary data requirements (and therefore higher cost, but potentially also higher integrity) and uncertain impact quantification.
    - Inventory methods are currently more aligned with GHGP requirements and support the building of collaborative supply chain relationships in which multiple purchasing parties can benefit.
- Lack of appropriate incentives for producers and communities.
- Understanding third party verification requirements for insetting, and lack of practical approaches for monitoring, reporting and verifying (MRV) project outcomes.
- Finding appropriate project partners on the ground, meeting local needs while balancing time and resource constraints.
- Inadequate integration of people and nature outcomes alongside carbon.

Challenges for insetting to scale in the FLAG sector are well documented (e.g. WBCSD 2024, WBCSD 2023, IPI / Abatable 2023) and further findings from stakeholder engagement are outlined in Box 3 (below).

Box 3: Challenges for insetting to scale

The 40+ stakeholders consulted for this work identified gaps in frameworks and guidance as key barriers for insetting to scale:

- **Complex accounting creates confusion** and increases investment barriers.
    - Lack of consistency in impact quantification and low transparency in accounting methods is a barrier to sector-wide collaboration, and to accurately understanding the effectiveness of interventions. Strict boundaries for what 'counts' as within value chain mitigation can restrict impact: both in terms of scale (proximity and traceability) and outcome areas (benefits for carbon, people, and nature).
- **Individualized actions are prioritized** above sector-wide transformation.
    - While progress in individual value chains is important, delivering benefits for climate, nature and people requires collective action across entire production systems and landscapes. Landscape approaches require frameworks to be integrated and aligned, and to better reflect change and impact which result from collaborative action.
- **Lack of incentives to invest in core benefits beyond carbon** can lead to a narrow focus on carbon reduction, potentially hindering investment opportunities
    - Non-carbon outcomes such as biodiversity, nature and livelihoods are essential for a just transition and for achieving climate goals. However, effective programs that deliver these non-carbon outcomes often do not receive the same level of investment as carbon projects as accounting methods for nature benefits are not fully developed, and project impacts are not as easily recognized. Equally, there is uncertainty as to which actions can deliver multiple outcomes for climate, nature and people, and in which contexts. There is a role for non-carbon frameworks (e.g., SBTN) to provide greater clarity in accounting methods for nature.
- **Inadequate safeguards for people and nature**.
    - Reporting frameworks lack mandatory safeguards for insetting interventions. Several verification pathways require evidence of safeguards, but these remain over-general and not specific to individual socio-environmental contexts. Progress has been made in developing principles and guidance for appropriate safeguards (e.g., SBTN stakeholder engagement guidance) and in developing in-house safeguard systems

(e.g., Conservation International's Safeguards System),but there is more to be done to make these requirements standardized and mainstream.

- **Lack of active financing models to share costs across the value chain**, and between the public, private and financial sectors.
    - In some cases, the mitigation lever is known, and a clear pathway for implementation of insetting projects is possible, but there is a lack of finance to implement the action.
- **Risk that the easiest within value chain options for companies have little climate benefit**, do not help to meet global climate targets and do not support FLAG sector transformation.
    - For example, a company could switch sourcing regions of a key commodity to a region with a lower emissions factor based on generic Life cycle assessment data, without investing in landscapes to deliver climate impact 'on the ground'.
- **Lack of incentives for farmers and producers** implementing projects 'on the ground'.
    - Due to lack of government incentives and inability of companies to exert pressure and deliver incentives far down the value chain.

6. Principles for high-integrity insetting

The principles below were developed based on the stakeholder engagement and desk review process and offer a response to the opportunities and challenges identified through project research. Building from the discussion in Section 4, the principles support the need to (1) advocate for more clearly defined boundaries and incentives for 'near value chain' activities and (2) define best practice for 'high-integrity' insetting actions within these 'near value chain' boundaries. These principles are intended to provide guidance for good practice activities across two timeframes:

Now: Provide companies with a starting point for action now, offering guidelines for high-integrity insetting action where uncertainties in frameworks and guidance may hold back investment.

Through 2030: Provide a vision for what good looks like in the longer term, offering direction for a wider group of actors to co-create an enabling environment for high-integrity insetting action.

Principles in summary

FLAG Sector Transformation	
Principle 1 **Prioritize climate impact**	**Principle 2** **Collaborate in supply sheds & landscapes**
GHG accounting and targets are used as tools to drive real climate impact on the ground.	Organizations collaborate in shared supply chains and sourcing landscapes to amplify impact and deliver holistic outcomes.

Just and Nature Positive Transition	
Principle 3 **Deliver shared value for people**	**Principle 4** **Deliver positive outcomes for nature**
Projects are designed and delivered in partnership with producers and communities, respect rights and deliver fair reward.	Projects benefit nature, including water and biodiversity, and realize the synergies between climate and nature outcomes.

Impact and Efficiency	
Principle 5 **Credible claims**	**Principle 6** **Efficient MRV**
Standards support companies to claim carbon, non-carbon and landscape outcomes, supporting a pragmatic accounting approach.	MRV is sufficient to ensure robust claims and meet the needs of producers, while minimizing the resource burden across the supply chain.

How the principles relate to other relevant work

The principles are directly relevant to ongoing updates of the GHGP Land Sector and Removals guidance, any follow-on updates to the SBTi FLAG standard, and ongoing update to SBTi Net Zero standard. There may also be implications for the GHGP Corporate Value Chain (Scope 3) standard (revision underway), and new GHGP Actions and Market instruments standard (development underway). As mentioned in detail in the actions section, multiple ongoing efforts support mainstreaming of these principles. Further, these principles should inform voluntary & regulatory disclosure and target-setting frameworks including CDP, the Corporate Sustainability Reporting Directive (CSRD), the Task Force on Nature-Related Financial Disclosures (TNFD), the Global Reporting Initiative (GRI), the Science Based Targets Network (SBTN), and the International Sustainability Standards Board (ISSB) Sustainability Disclosure Standards.

As described in Sections 1 and 3 above, the development of the principles was informed by engagement of more than 40 organizations and were informed by work of partner organizations, including Proforest's Call for Grounded Engagement at Climate Week NYC 2024.[17] The three Proforest principles, alongside a set of draft principles prepared by Conservation International, formed the basis of initial engagement with the wider stakeholder partners referenced in the Acknowledgements section of this report.

The UK Government Department for Energy Security and Net Zero (DESNZ) and Department for Environment, Food, and Rural Affairs (Defra) drafted a set of best practice principles for Within Value Chain Mitigation entitled 'Addressing agricultural scope 3 emissions: Best-practice principles for Within Value Chain Mitigation' (published in January 2025). This work was developed with the input of supply side, demand side, and enabling environment stakeholders, and Conservation International contributed via an Advisory Group role. Although the principles identified for the Defra/DESNZ work have a slightly different focus and framing than those in this report, the themes and recommendations are consistent with this work, indicating broad sector alignment. Together, these complementary works provide a strong and unified vision and direction of travel.

How to read the principles

Each ***principle*** outlines: the overall vision for the principle to be realized by 2030; the business case for implementing this principle; current issues and barriers which prevent the vision from becoming reality; overview of action to achieve the principle; a case study illustrating the current challenge, or potential solution towards achieving the principle. In the following section we identify more specific ***actions*** for each stakeholder group (civil society, companies, project developers and standard setters) to put principles into practice.

Principle 1: Prioritize climate impact

GHG accounting and FLAG targets are used as tools to drive real climate impact on the ground. Companies prioritize interventions that deliver the largest climate impact, within and near their value chains and communicate when GHG accounting frameworks encourage activities which have limited impact.

Vision by 2030: What will it look like when this principle is implemented in practice?

- Boundaries for actions taking place 'near' the value chain are clearly defined and there is a clear incentive for them. This may build on existing guidance for BVCM/ongoing emissions, neutralization/residual emissions, and/or the GHG accounting and target-setting framework for FLAG and scope 3 emissions (e.g., within indirect emissions).
- Companies prioritize the highest emissions sources (including high emissions materials, supply chains and geographies) and additional activities (e.g. in geographies less able to attract climate finance). This includes going beyond shifting purchasing from deforestation linked suppliers & geographies, to actively work to protect remaining natural ecosystems on deforestation frontiers within sourcing landscapes.

[17]The Call for Grounded Engagement was led by Proforest in collaboration with Conservation International, Environmental Defense Fund, IETA, the International Platform for Insetting, Proforest, The Nature Conservancy, Value Change Initiative and World Business Council for Sustainable Development.

- Activities leading to FLAG sector transformation are the easiest path to meeting individual corporate GHG targets.
- Supply chain decarbonization investments support the creation of a supportive environment for farmers (e.g., producer buy-in, adequate resources and capacity, knowledge sharing) for the delivery of climate outcomes, incentivizing companies to take interventions with large and measurable GHG impact in and around their supply chains.
- To maintain credibility of investments, all projects are assessed and prioritized against a uniform set of quality attributes that support high quality actions (including safeguards for nature and people, see principle 3 and 4).

Business case: Why should companies seek to achieve this principle, what are the benefits?

- By investing in their supply chains and supply chain landscapes to achieve GHG impact, companies can future proof their strategies and differentiate themselves in the marketplace.
- Interventions with appropriate enabling conditions will more effectively deliver GHG impact, reduce project durability risks, increase supply chain resilience, and reduce costs in the long term.
- Integration of people and nature into climate projects is critical to achieve durable climate impacts and can help companies to get 'ahead of the curve' of reporting requirements and avoid reputational risks. This includes contribution to voluntary reporting requirements (e.g., TNFD, TCFD, TISFD), regulatory reporting requirements (e.g., the EU's Corporate Sustainability Reporting Directive (CSRD)), climate and nature targets (SBTi, SBTs for nature) and climate and nature transition plans (CTAPs, NTAPs).

Current realities: What issues and barriers prevent this principle being achieved now?

- Accounting rules can lead companies to switch supply chains to countries or regions with lower emissions factors. In some cases, this can create positive pressure to change practices, reward producers who have implemented climate positive practices, or create penalties for persistently bad actors by reducing incentives for land clearance or other undesired actions. Yet without investing directly in landscapes to support emissions reductions and removals, net GHG impact is limited.
- Establishing a supportive environment for farmers (e.g., producer buy-in, adequate resources and capacity, knowledge sharing) is a prerequisite to effective carbon reduction and removal activity. However, there is little incentive for setting up enabling conditions under current accounting rules, often leaving farmers or producers with a disproportionate project burden (e.g. lack of support for practice implementation, data collection requirements).
- Different accounting frameworks prioritize different activities, making it difficult to prioritize where to focus impact. For example, avoiding deforestation shows large potential for emissions reductions in intervention accounting (for carbon credits), but less impactful under an inventory framework. Similarly, GHG inventory boundaries can limit what relevant GHG sources or sinks are prioritized (see Section 4).

What is needed to achieve this principle?

- Develop clear boundaries and incentive for 'near value chain' activities, building on ongoing development of BVCM, neutralization targets, and/or scope 3 targets.
- Incentivize supply chain companies to invest in projects with real impact across sourcing landscapes, rather than taking 'easier win' actions (e.g., switching supply chains to regions with lower emissions factors) or taking no action due to difficult GHG accounting rules.
- Provide guidance for companies to scale and plan FLAG insetting projects and accelerate sectoral action.
- Increase transparency and consistency for disclosure of insetting projects and investments. For example, developing a score card that enables FLAG companies to report on insetting efforts, lowering the perceived risk of insetting projects.
- Develop reporting framework for insetting that allows transparent & consistent reporting of broader impacts.

Case study - Nestlé's supply chain (scope 3) and sourcing landscape removals framework

Nestlé have been working for over a decade to deliver positive environmental impact on the ground through their projects. Recognizing the limitations of current accounting approaches, Nestlé have developed an internal guidance named 'Supply chain (scope 3) and sourcing landscapes removals framework' to guide their execution of large-scale Natural Climate Solutions (NCS) projects, to be able to act now and work towards achieving the goals set out in their net zero roadmap. This framework has allowed them to start making scaled investments while the GHG accounting standards continue to clarify.

Nestlé's removals framework recognizes the value of both on-farm carbon interventions (as would be accountable under the GHGP) as well as near-farm carbon interventions (such as those taking place adjacent to sourcing farms and in wider sourcing landscapes). The framework has been developed and revised in line with the GHGP and SBTi FLAG guidance, while recognizing the benefits of actions taking place in wider supply sheds and sourcing landscapes.

Principle 2: Collaborate in supply sheds & landscapes

Where companies have overlapping supply chains, organizations should collaborate in shared sourcing regions and landscapes to amplify impact, reduce risk, share costs, and deliver holistic outcomes for people & nature. Companies should also collaborate with non-value chain actors to support landscape-wide change.

Vision by 2030: What will it look like when this principle is implemented in practice?

- Frameworks and standards incentive companies collaborate across sourcing landscapes, leading to landscape-wide outcomes.
- Local organizations and project developers have skills, frameworks, and capacity to manage collaborative multi-stakeholder projects, and deliver benefits for climate, nature, and people.
- Companies and project developers design and work towards collective goals, in partnership with local stakeholders from inception. Companies work together to pool resources and align project design and MRV, to improve efficiency and amplify impact.
- Companies and project developers coordinate action and investments (including within and beyond value chain) to maximize impact.
- Target and accounting frameworks directly incentivize collective action – potentially also allowing accounting for shared outcomes. This includes appropriate targets for collaboration, and systems to manage double counting and free-rider risk.
- Deforestation and conversion are addressed at the landscape-level to ensure effective action at scale. This includes working with actors on the deforestation frontier that may not currently be in international supply chains.

Business case: Why should companies seek to achieve this principle, what are the benefits?

- Collective investment across each supply chain tier reduces the risk of projects becoming stranded assets and increases collective responsibility for success of interventions.
- Alignment of scope 3 goals across the value chain, and pre-competitive collaboration, can improve resource efficiency and support an enabling environment for companies to interventions.
- Improved alignment between companies in data collection and accounting creates greater consistency and comparability across companies and improved understanding of the impact of interventions.
- Insetting interventions are most effective at the landscape level: collective action yields greater results for climate mitigation and supply chain resilience.
- Pre-competitive collaboration to establish working parameters (e.g., MRV, benefit sharing) can improve resilience of supply and reward producers, especially in high-risk communities (e.g., coffee, cocoa, palm) where competition may be higher.

Current realities: What issues and barriers prevent this principle being achieved now?

- Siloed investment in individual, traceable farms is the clearest way to meet GHG targets but limits impact potential across entire sourcing landscapes and supply chains. Pooling resources between stakeholders with an interest in a shared landscape can amplify impact and drive down investment cost but is hindered by accounting frameworks which make accounting for collective action difficult. For example, SBTi targets & GHG footprints are company-specific and do not account for shared business models or collaboration and companies often prefer individually claimable outcomes over collective achievements.
- Companies are concerned by double-counting, free-riders, and competitive pressures in collaborative projects, as current frameworks don't offer collaborative approaches to managing these risks. Targets for collaborative action must manage double counting risk are needed to encourage actors to work towards shared goals.
- As current GHG accounting rules solidify, collaboration can create short-term inefficiencies, and strong collaborative programs take time to establish. Collaboration requires effectively managing competitive pressures, agreeing approaches for allocation of outcomes, and navigating competing incentives. In some cases, it can be faster for companies to move ahead alone, despite the lower overall impact.

What is needed to achieve this principle?

- Standards, with advocacy support from civil society, to define clear boundaries for 'near value chain' activities, and guidance on how companies can collaborate in shared supply sheds and sourcing landscapes to maximize impact.
- Standards to develop additional insetting-specific guidance to support accounting in collaborative projects including developing clear incentives and attribution structures for collective investment.
- Companies working in shared sourcing landscapes to align investment portfolios and set up shared investment funds, with the support of CSOs as to how to claim against outcomes and communicate outcomes to scale collaborative efforts.
- Standards and CSOs to collaborate in creating a framework that allows action even when data availability is low and supports transparent, continuous improvement over time.

Case Study: Cumbria Landscape Enterprise Networks (LENs)

Collaboration between stakeholders in shared sourcing landscapes can catalyze uptake of regenerative agriculture by producers, develop supply chain resilience, deliver landscape wide outcomes, and support supply chain companies to achieve scope 3 targets.

3Keel's LENs program facilitates partnerships between business customers, who have business needs derived from the landscape's natural assets, and local producers, who can change practices and deliver ecosystem services in a landscape.

A collaboration between United Utilities, a UK water company, Nestlé and local partners piloted nutrient trading and catchment markets via LENs in the River Petrill catchment, Cumbria. United Utilities invested in technological solutions and catchment interventions such as hedgerows, buffer strips and sediment ponds by producers to deliver water quality and flood mitigation improvements.

Case study: Siak Pelalawan Landscape Program: Using multi-stakeholder led interventions to address GHG emissions in peat landscapes

Multi-stakeholder initiatives can allow the pooling of funds from different investment mechanisms and across stakeholder interests to support landscape scale restoration, but there are limitations for claiming landscape scale outcomes against scope 3 guidance. This is a challenge for peatland restoration.

In the Siak and Pelalawan landscape, several global companies sourcing palm from the region (including Cargill, Danone, Golden Agri-Resources, Musim Mas, Nestlé, PepsiCo and Unilever) are collaborating to deliver a sector-led jurisdictional initiative, despite many impacts not currently eligible to be claimed under Scope 3 FLAG guidance due to current traceability and proximity requirements.

Siak and Pelalawan districts in Indonesia are long established palm oil production areas but contain nearly 1.25 million ha of peatland. Peatlands are one of the biggest potential reserves of carbon in Indonesia, but high risk of peatland conversion and degradation through palm oil production also means they are one of the largest sources of land-related emissions. Peatlands do not lend themselves to interventions focused solely on the farm or land management unit, as interventions need to account for the wider hydrology of the peatland landscape and broad spatial coverage of the peat ecosystem. Currently, companies can only claim for peat restoration activities taking place within the LMU (and in some conditions adjacent areas), disincentivizing wider landscape action. Jurisdictional and landscape approaches like the Siak Pelalawan Landscape Program can scale efforts beyond just direct engagement with suppliers and interventions on farms.

Principle 3: Deliver shared value for people

Projects are designed and delivered in partnership with producers and communities, respecting Indigenous rights, human rights, gender equality, labor standards, and land rights, while ensuring fair wages and equitable benefit sharing for all.

Vision by 2030: What will it look like when this principle is implemented in practice?

- Companies and project developers implement climate projects with comprehensive stakeholder engagement processes (including Free Prior and Informed Consent processes when Indigenous Peoples are involved) to ensure the integration of the needs, priorities, and knowledge of men and women from all social groups involved, especially those historically marginalized.
- Robust environmental and social safeguards approach ensures that potential risks, impacts, and opportunities are analyzed, mitigated or addressed, monitored, and disclosed following best practice.
- Companies ensure respect for human rights by adopting clear policies and due diligence processes, including establishing Feedback and Grievance Mechanisms accessible to all stakeholders and providing remediation in cases of environmental and/or human rights violations.
- Stakeholders across wider basins and communities are partners in project design, implementation and evaluation, rather than only individual farmers/farms, avoiding leakage of negative impacts, leveraging wider opportunities, stimulating collective action and supporting landscape transformation.
- Projects are designed to support sustainable and equitable livelihoods and a just transition for both men and women and all social groups involved.
- All projects offer fair and equal wages for farmers, producers, and local communities, and employ a benefit sharing approach that provides ongoing incentive to implement and maintain projects.

Business case: Why should companies seek to achieve this principle, what are the benefits?

- Engaging producers, local communities, and stakeholders, integrating their knowledge in the design phase, and respecting their rights leads to more successful projects. This strategy reduces costs, increases durability and productivity, and maximizes investment value. Conversely, failing to engage these groups can result in higher costs, project delays, reduced productivity, and diminished investment returns.
- Implementing appropriate social safeguards is key to ensure credibility and durability of actions and reduce reputational, legal, social, & governance risk of interventions.[18]
- Appropriate engagement of people and communities offers local benefits in terms of adaptation to climate change, and increased resilience for local communities and the supply chain.
- Investments are future-proofed against increased rigor in frameworks and standards.

[18] Reputational risks: customers and the public at large value environmentally and socially friendly productive methods; violations to these standards could lead to damaging reports by media and activists with a global outreach leading to serious consequences for the brand. Legal risks: costly, lengthy and image-damaging legal cases can be brought against the company. Social risks: disrupting productivity & reputation, value chain worker strikes, conflicts in communities, hazards against children (child labour), etc. Governance risks: weak governance can lead to malpractice, corruption, unethical behaviors affecting production and company's image.

- Social reporting requirements and target setting are emerging (e.g., SBTN Landscape engagement target, TISFD), delivering co-benefits puts companies ahead of the curve on reporting requirements.

Current realities: What issues and barriers prevent this principle being achieved now?

- Thriving communities support long term and effective climate and nature outcomes, but frameworks for social impacts are less mature than for climate, metrics to assess social impact are not yet standardized, and expertise on social topics is limited within teams and organizations implementing GHG programs.
- Basic social safeguards are relatively well established in carbon crediting standards,[19] but the main corporate GHG accounting standards don't currently require producer engagement or other social safeguards. Key frameworks (e.g., GHGP, SBTi) could mandate best practice for stakeholder engagement in insetting projects, pulling from approaches established for carbon crediting standards.
- Producers are most likely to bear the cost and risks of transition[20] (e.g., capital costs of equipment & plant material, lack of insurance for short term yield loss / lag in the transition to regenerative agriculture). Incentives, education, and support are lacking for many producers to take part in insetting projects. Fair and culturally appropriate benefit sharing is critical to scale involvement and impact.

What is needed to achieve this principle?

- Civil society organizations provide clear guidance on the application of social safeguards and benefit sharing mechanisms through demonstration projects.
- Standards incorporate mandatory safeguards and require equitable benefit sharing, building on the work of carbon standards.
- Companies ensure all projects implement fair benefit sharing mechanisms and are designed in close collaboration with local stakeholders towards achieving shared goals.

Case study: Conservation International Safeguards System

Developing internal safeguards systems to fill the gap of standardized safeguard approaches can help ensure that projects are delivered to a high standard, avoiding or mitigating against safeguard risk and advancing human rights.

Conservation International has developed an Environmental and Social Safeguards System, providing guidance, standards and policies to staff and partners when implementing projects, ensuring projects are effective, efficient and equitable.

CI's Safeguard System follows four key steps:

- Project screening to understand potential risks to people and nature;
- Designing safeguard plans, gender plans and accountability plans to reduce risks;
- Monitor compliance with environmental and social risk management; and
- Evaluate compliance for environmental and social risk at the end of project, to understand if objectives have been achieved.

Case Study: Mars/Royal Canin Regenerative Agriculture Incentives

Providing direct financial assistance to producers, alongside skills training and capacity building can help foster stronger supply chain relationships and supply chain resilience.

Royal Canin has partnered with Soil Capital to develop a roadmap towards regenerative agriculture, aimed at engaging, training and supporting producers and farming cooperatives in its supply chain. They understand the importance of **direct financial assistance** to producers in facilitating producers' transition to regenerative

[19] Verra, Gold Standard, and Plan Vivo require extensive consultation processes including with affected stakeholders (Source: WBCSD 2024, Financing Mechanisms for Land Based Interventions, white paper.)
[20] Future Fit Food Report shows that cost of transition is much higher for producers than for downstream buyers. Link

agriculture. Financial backing mitigates the risk of transition, and enables producers to experiment, adapt and learn when implementing new practices.

Alongside mitigating financial risks, Royal Canin and Soil Capital support producers with **skills training and capacity building**. producers receive direct technical support for the regenerative transition, establishing a strong foundation of knowledge and supporting outcomes including and beyond carbon.

Through visiting producers on site, the project has helped foster **stronger supply chain relationships**, helping Royal Canin and their producers align on shared goals and challenges.

Principle 4: Deliver positive outcomes for nature

Projects measurably benefit nature, including water and biodiversity, and realize the synergies between climate and nature outcomes, including tackling deforestation and conversion of natural ecosystems.

Vision by 2030: What will it look like when this principle is implemented in practice?

- Projects are designed to mitigate negative impacts on nature and deliver measurable positive outcomes for nature, in particular realizing win-win opportunities for climate and nature as well as prioritizing transitions toward native ecosystems and species.
- Clear methods exist for accounting for nature related impacts, including in understanding the contribution of wider sourcing landscapes to individual value chains.
- With companies support, land use change (LUC) from deforestation and conversion has been halted, mitigating emissions and improving the resilience of ecosystems, communities, & supply chains.

Business case: Why should companies seek to achieve this principle, what are the benefits?

- Projects which integrate nature-related outcomes can enhance ecosystem service delivery and buffer detrimental consequences of nature degradation: e.g. financial loss linked to disruptions in water availability, soil health, or climate stability. Every dollar invested in nature-based climate adaptation returns four dollars in reduced disaster impact.[21]
- Nature reporting requirements and target setting are quickly emerging (e.g., TNFD, SBTN, CSRD), delivering co-benefits allows companies to get ahead of the curve of reporting requirements.
- Considering nature-related impacts within climate projects can mitigate reputational, financial, & legal risks stemming from climate/nature tradeoffs (e.g., biodiversity impacts of green energy projects).
- Linking deforestation- and conversion-free strategies to net zero goals can create powerful synergies, advancing both ecosystem integrity and climate targets.

Current realities: What issues and barriers prevent this principle being achieved now?

- Healthy ecosystems support long term and effective climate outcomes,[22] but frameworks for nature are less mature and less widely adopted than for climate, and metrics to assess impacts are not yet standardized. This creates challenges for companies to demonstrate value in investment in nature-related projects.
- Expertise on nature is lacking within leadership, supply chain, and sustainability teams. The nascence of frameworks and location-specific, complex impacts on nature can make it difficult to communicate and build business strategies around. Further, while assessment of nature impacts & dependencies of operated facilities is often possible (though it can be costly), assessment of (often much more significant) impacts & dependencies in supply chains is limited by traceability and actionable datasets.

[21] Global Commission on Adaptation (2019), Adapt Now: A Global Call For Leadership On Climate Resilience, Link

[22] Systematic review by Key, Smith and Tuner et al. 2022 of 109 nature based solutions for climate using 33 indicators of ecosystem health. Find 88% of interventions with positive outcomes for climate deliver benefits for ecosystem health and are associated with 67% average increase in species richness. However, there are trade-offs in some interventions, e.g., monoculture plantations of non-native species.

- While some actions are obvious win-wins for nature and climate (e.g., avoided deforestation and conversion of natural ecosystems), the impacts and potential trade-offs for some interventions are not yet well understood.

What is needed to achieve this principle?

- Engage with stakeholders to understand how projects can deliver shared value for nature and carbon.
- Provide clear guidance on the implementation of environmental safeguards.
- Map actions which contribute to carbon, nature and biodiversity outcomes, identifying 'risky' interventions that can have trade-offs.
- Integrate GHG and nature requirements between frameworks, including SBTi/SBTN and TCFD/TNFD.

Case study: Verra Nature Framework and Climate, Community and Biodiversity standards

Verra has made progress in developing standardized methods for delivering biodiversity and community outcomes alongside climate projects.

- Verra's CCB standards provide assurance that projects are delivering tangible climate, community and biodiversity benefits alongside carbon. CCB creates a price premium for project implementation, supporting project teams to deliver co-benefits on the ground.
- Projects include safeguards for people and nature: specifically ensuring free, prior and informed consent (FPIC) and ensuring projects track direct and indirect benefits and risks.
- Verra's CCB standard lays the groundwork for consideration of carbon, climate and nature integration for insetting projects.

Principle 5: Credible claims

Standards support companies to claim GHG, non-GHG and landscape-level outcomes, supporting a pragmatic and credible approach to accounting that incentivizes impactful investment.

Vision by 2030: What will it look like when this principle is implemented in practice?

- Companies and project developers can credibly claim non-GHG and landscape-level outcomes, alongside GHG claims. This is supported by further development of existing and new standards to better define and incentivize 'near value chain' activities (see Section 4).
- Target and accounting frameworks take a pragmatic approach to traceability to de-risk investment and allow focus on integrated climate, nature, and social outcomes.

Business case: Why should companies seek to achieve this principle, what are the benefits?

- Coordination between measurement frameworks and standards provides access to consistent data, and greater alignment with standards.
- Pragmatism in approaches to traceability and GHG accounting challenges can promote early action, and 'getting ahead of the curve' with insetting investments.

Current realities: What issues and barriers prevent this principle being achieved now?

- The GHGP and Value Change Initiative (VCI) have made substantial progress in providing methods to account for GHG impacts and are expected to provide further clarity on accounting at the supply shed and / or sourcing region for agricultural supply chains. However, challenges remain in terms of how far within value chain mitigation actions can be claimed. This includes traceability, allocation of claims across the supply chain, management of double counting, stranded assets, and free-rider risks. The GHGP and SBTi are expected to offer additional flexibility and clarity on traceability by allowing accounting at the supply shed / sourcing region level, but uncertainty remains.

- The regenerative/agroecological agricultural production systems which best support integrated climate, nature, and social outcomes are often those most difficult to allocate claims for due to the complexity of attribution due to intercropping, crop rotations, and incorporation of livestock.
- Progress has been made towards developing accounting frameworks for nature-related outcomes (e.g. SBTN), but further clarification is needed (e.g., around steps 4 and 5 of the SBTN), to reduce uncertainty about how to communicate nature-related outcomes.
- Challenges associated with allocation of impacts across the value chain, and preventing double counting of emissions reductions or removals by multiple companies in a landscape.

What is needed to achieve this principle?

- Clear claim frameworks that recognize the key quality criteria of insetting interventions, e.g. a scorecard to assess insetting projects against a standardized set of quality criteria, value chain proximity/traceability, vintage, GHG quantification uncertainty, double counting risk, and social and nature impacts.
- Develop further guidance to clarify accounting for collaborative action and co-claims.
- CSOs continue to work with companies to bridge accounting limitations while encouraging investment in projects with GHG, nature, and social impact.
- Companies take a pragmatic approach to consider and communicate impact of interventions beyond scope 3 accounting, while maintaining the credibility of claims.

Case study: General Mills and SustainCert: designing a balanced decarbonization strategy

Designing programs exclusively to meet existing GHG requirements can increase cost and reduce potential for impact. High-impact programs delivering robust non-GHG outcomes often struggle to garner investment given the nascent claims structures for nature benefits.

General Mills assessed 5 of their US and Canada regenerative agriculture programs and investments against criteria for GHG claimability from SBTi, the GHGP and VCI. All 5 programs had impactful GHG outcomes, but only 1 was aligned with the criteria for GHG claiming (a scope 3 ecosystem market designed specifically for this purpose). The other 4 programs were not aligned due to missing elements related to farm management data, soil data collection and assurances related to double counting. These projects had potential for co-claims, but only with trade-offs to the impact, feasibility or scalability of the projects. For example, one project was a public-private partnership between General Mills, the US Department of Agriculture and local conservation organizations supporting technical assistance and capacity building for producers. Impacts are locally-led, and difficult to track and quantify. While data requirements for claiming in corporate inventories are important for high-integrity claims, it is also costly and time consuming for producers. Local services often lack the capacity to support this, resulting in the loss of producers enrolled in individual programs.

Alternative pathways such as contribution claims aligned with SBTI's BVCM guidance could support recognition of these interventions and may help companies to align and coordinate across broader landscapes.

Principle 6: Efficient monitoring, reporting, and verification (MRV)
MRV ensures robust claims while minimizing the resource burden and maximizing the value of data collected for actors across the supply chain. Data collection should support the goals and needs of producers and local communities, with appropriate compensation for data collection efforts.

Vision by 2030: What will it look like when this principle is implemented in practice?

- Target and accounting frameworks require efficient and aligned but context-specific MRV approaches that enable credible claims while minimizing resource burden across the supply chain. Accounting frameworks and MRV providers co-evolved to promote high-integrity and efficiency.
- Companies co-develop MRV approaches with project developers, standard bodies, and producers that serve the needs of producers and supply chain partners.
- MRV approaches are developed specifically for the agriculture sector, addressing technical accounting challenges including chain of custody challenges and assessing food emissions across the supply chain. Accounting approaches need to navigate the realities of limited traceability information, emissions allocation for purchase of derivatives, attribution from whole farm to product, or attribution across a crop rotation. MRV approaches should also be designed specifically for key agricultural GHGs, and to track and verify the impacts of farm management practices.

Business case: Why should companies seek to achieve this principle? What are the benefits?

- Efficient MRV processes reduce the cost of making a credible claim. Supporting producers in data collection, via direct compensation and use of enabling technologies like remote sensing,[23] is more likely to result in accurate and reliable data, meaning greater visibility of the impact of interventions.
- MRV approaches that serve the needs of all supply chain actors can strengthen supplier relationships.

Current realities: What issues and barriers prevent this principle being achieved now?

- MRV approaches are currently diverse, complex, and often burdensome for producers, limiting uptake of interventions. Complexity is often driven by GHGP and SBTi requirements which were designed to increase integrity but may not balance practical implementation challenges and cost. For example, the current GHGP LSRG draft requires companies to monitor carbon removals in project areas indefinitely or assume complete reversal of stored carbon.
- There is often a mismatch between annual verification processes, and time taken to verify outcomes of a project from MRV. This can mean verification can't be completed by reporting deadlines, and that the supporting infrastructure for making claims does not align with outcomes.
- Producers lack the data and resources to credibly report against requirements.
- Often data does not serve producers' needs or interests, and there is not adequate compensation for the time taken to develop the data inputs.
- Without adequate incentives, companies will not collect accurate and relevant data to support projects.
- Low uptake of SBTi in producer countries makes it difficult to justify efforts and collaborate with supply chain partners.

What is needed to achieve this principle?

- Make use of emerging MRV technologies to reduce the MRV burden for producers and streamline on-farm data collection
- Offer incentives and support for producers to carry out MRV which meets requirements for both the farm and supply chain actors.
- Develop MRV guidance which supports needs across the whole supply chain and accommodates continuous improvement of MRV approaches.

[23] Remote sensing can be used to monitor some factors like planting dates, tillage events, and land use while other technologies may be needed for factors like fertilization, crop yields, & livestock counts.

Case Study: Value Change Initiative and Mars

Accounting methods can be developed to streamline reporting, while remaining aligned with key accounting frameworks and contributing to climate targets.

The Value Chain Interventions Guidance developed by the Value Change Initiative (VCI) enables reporting on intervention emissions and reductions towards corporate climate performance targets, in line with accounting frameworks including the GHGP.

Mars Petcare has operated a pet food processing facility in Bathurst, Australia for over 40 years and are working with wheat suppliers at Bathurst to pilot approaches to reduce GHG emissions at the farm level, while improving soil health and benefiting producers. The program works with over 200 producers and adopts regenerative practices across 700,000 ha.

Mars adopted VCI guidance to monitor and claim the carbon impacts from their program. Accounting for positive impact is a key challenge for Mars and their producers. Mars used the Cool Farm Tool data for farm data collection and followed VCI guidance to support credible calculation and communication of GHG benefits from the supply chain programs. This included a review of the current quantification approach for emissions calculations, validating the data needed for calculations, and providing support on how this could be used towards reporting. The program was able to claim 145,000 tonnes CO_2 sequestered, with auditable calculations and ongoing monitoring.

7. Recommended actions for key stakeholders

The goal of this section is define the key actions needed to create the enabling environment for companies to scale high-integrity insetting, building from the key messages Table 1 and enabling environment overview in Figure 2. In the following tables we outline a set of recommended actions for and examples of relevant actions already underway to support progress towards each of the six principles for high-integrity insetting presented in Section 6. These actions are split into three sections to address the interrelated but distinct roles of the following stakeholder groups:

1. Actions for Companies and Project Developers
2. Actions for Civil Society
3. Actions for Standard Setters and Guidance Developers

The actions recommended here build upon and align with actions already underway by various stakeholders, aiming to increase visibility between groups and facilitate collaboration, as well as identifying gaps where further focus is needed. These table represent a snapshot in time for a quickly evolving area and includes a list of actions underway that is indicative, not comprehensive. Further, many of the existing/ongoing actions are relevant across multiple stakeholder groups and principles. This effort represents a first step and we are looking for partners to build on this to develop a clear and comprehensive roadmap for action. This collaborative roadmap should be developed through continued stakeholder consultation and include deeper engagement with Indigenous Peoples, local communities, and producers in particular.

Actions for Companies and Project Developers

Principle 1: Prioritize climate impact	
Recommended Actions	**Actions Underway and Examples**
Support projects that result in real supply chain, landscape, and/or FLAG sector impact. This includes action to tackle deforestation and conversion in agricultural supply chains. Transparently communicate when and how GHG accounting methods limit impactful investments and collaborate with wider stakeholders to enable claiming of shared outcomes. Transparently communicate where additional guidance is needed to scale investment in high-integrity insetting, and support guidance developers to ensure gaps are filled.	• Nestlé scope 3 removals framework allows the organization to prioritize the largest climate opportunities on-farm or within the sourcing landscape. • Value Change Initiative case study on how inventory accounting can be used to reflect the impacts of interventions in complex agricultural systems. Developed with General Mills, PepsiCo, Regrow, Sustainable Food Lab, and Indigo Ag.

Principle 2: Collaborate in supply sheds & landscapes	
Recommended Actions	**Actions Underway and Examples**
Partner with local stakeholders to ensure projects are tailored towards local needs, and projects are designed to deliver against both company goals and goals of local stakeholders. Align investment portfolios and collaborate with other organizations in shared landscapes, maximizing impact across a landscape by combining and diversifying financing mechanisms (e.g., coordination between REDD+ carbon credit project, off-farm restoration, on-farm value chain project, and biodiversity crediting project). Where financing mechanisms are under development, take a pragmatic approach to maximize on-the-ground impact, while making conservative claims (e.g., avoiding the risk of double counting). Support pre-competitive sectoral collaboration to align approaches and, where feasible, pool investment to increase impact and reduce risk.	• Consumer Goods Forum Forest Positive Coalition: Coalition of 22 companies working to remove deforestation, forest degradation and conversion from key commodity supply chains. The landscape working group is working on approaches to support local implementation and capacity building, helping local stakeholders develop long term landscape plans. • Unlock: cotton sector collaboration to support producers to identify and implement practice changes, quantifying impact and offer financial incentives, in line with SBTi and GHGP rules. • Landscape Enterprise Networks: public and private sector collaboration to fund Nature-based Solutions in landscapes in Europe. • SourceUp: growing online platform, showcasing profiles and progress data on 50+ landscape initiatives across the globe, convened by 20+ organizations and supported by 80+ companies • The Exchange Market fund: a pooled finance resource launched by Soil Association Exchange, Finance Earth, and Lloyds Banking Group to pay arable producers in the UK for a range of outcomes with multiple contributing supply chain actors. • WBCSD action agenda for regenerative landscapes and Brazil accelerator: COP28 Action Agenda for Regenerative Landscapes and WBCSD Landscape Accelerator Brazil • Coffee Supply Shed Approach: Conservation International and IDH Trade, with Solidardidad and other partners, are testing the feasibility of a collective supply shed approach for accelerating investment in coffee decarbonization in Huila, Colombia. The approach will be co-created with local practitioners and global supply chain actors (via the Sustainable Coffee Challenge) and aims to manage landscape risks, producer priorities, industry needs, as well as emerging GHG accounting rules. • Sustainable Coffee Challenge: Coalition of 120+ coffee sector stakeholders led by Conservation International working to drive industry ambition and collaboration to create a nature & people positive coffee sector. A core focus is to boost and broker place-based investments in coffee sourcing landscapes and supply sheds. • Finance Earth, WWF UK, and WWF Brazil have an insetting initiative for Cerrado Resilience. • Finance Earth and Trillion Trees supporting Forest Landscape Restoration using supply chain financing models to support insetting across cocoa, coffee and other supply chains.

Principle 3: Deliver shared value for people	
Recommended Actions	**Actions Underway and Examples**
Implement benefit sharing mechanisms for all interventions to ensure adequate remuneration and reward for producers and communities and ensure financial longevity of projects. Collaborate with financial institutions and other partners to develop and scale finance mechanisms to support transition costs for producers and design transparent contract structures to clarify if/how projected outcomes are compensated and any true-up mechanisms required.[24] Meaningfully engage with local stakeholders and their representatives to define goals and maximize opportunities for people and nature in all projects. Design and implement projects & programs to meet and exceed minimum safeguards by 1) ensuring durability through appropriate financing mechanisms and delivery of long-term value for communities; 2) retaining community value including through expansion and diversification of project activities; 3) prioritizing cultural values (even where these cannot be measured).	• Nestlé, PUR, & NatureCo are developing a benefit sharing approach in the scope 3 context. • Verra's Scope 3 Standard Program builds on the social safeguards in the Verified Carbon Standard program, includes a novel approach to ownership designed to protect and compensate producers, and will enable developers to go further by layering on programs such as the Climate, Community and Biodiversity Standards. • Social Carbon's Insetting Framework incorporates and builds on SOCIALCARBON Standard social safeguard requirements • Rabobank's Acorn program pays small holder producers for agroforestry and restoration with 80% of carbon value going to producers. • Unilever's social performance strategy: This case study describes Unilever's path towards defining and implementing its social impact strategy for its core business and across the value chain.

[24] Companies or project developers may need to pre-commit financing for annual payments (given outcomes may be verified on on 3 - 5 year increments). This often requires upfront financing as farmers need annual payments for practice changes which necessitates creating models to estimate the GHG outcomes of each producer and then accounting for this proportion of the actual verified outcomes at the end of the monitoring period. Given the uncertainty in estimating GHG outcomes, very clear and transparent contract structures and true up mechanisms are required to account for under or overpayment.

Principle 4: Deliver positive outcomes for nature	
Recommended Actions	**Actions Underway and Examples**
Incorporate safeguards for nature throughout all projects, particularly projects that do not follow a crediting standard methodology and for which safeguards are not currently mandatory. All projects (regardless of methodology) take a critical approach to ensure nature-related safeguards are ambitious and reflect context specific concerns. This includes linking efforts on reaching climate goals to deforestation- and conversion-free strategies. Mitigate any nature-related harm from projects and design projects to deliver positive outcomes for nature and biodiversity alongside climate & people.	• Accountability Framework Initiative (AFI): consensus-based roadmap for achieving ethical FLAG sector supply chains that protect forests, natural ecosystems and human rights. • Verra's Scope 3 Standard Program includes environmental safeguards and allows layering on programs such as the Climate, Community and Biodiversity Standards. • Social Carbon's Insetting Framework incorporates and builds on SOCIALCARBON Standard environmental safeguard requirements • TNFD & SBTN provide frameworks for companies to understand and set targets to address their nature-related impacts, dependencies, risks & opportunities • WBCSD Nature Positive Roadmap: provides "how-to" corporate guidance for credible, impactful nature action to support the global goal for nature. This includes identifying the most significant dependencies, impacts, risks and opportunities (DIROs) for companies up and down the value chain and inform priority actions. • WBCSD Regenerative Agriculture Metrics: short list of cross-sectoral regenerative agriculture outcomes metrics which support carbon, nature and social equity outcomes. • Soil Capital's Beyond Carbon framework leverages existing data collection to provide insights on soil health, biodiversity, water management, climate, & socio-economics

Principle 5: Credible claims	
Recommended Actions	**Actions Underway and Examples**
Take a pragmatic approach to uncertainties in GHG accounting methods, including traceability requirements and accounting methods for nature. Where the ability to make claims is not yet clear, companies take a conservative approach to claims and transparently communicate claiming challenges, while continuing to invest in projects with demonstrable GHG and non-GHG impact. Third party verification may support credible investments where accounting methods are not clear. Prioritize collective and pre-competitive action in shared sourcing regions, including across diverse financing mechanisms. Companies are transparent in their accounting methods, allowing for better understanding of the shared impact of projects. Actively engage with standard setters, promoting transparency and providing case studies which can be used towards development of new guidance. Support actions beyond those which can be counted towards scope 3 and consider alternative communication of impact (e.g., demonstrating impact on resilience, community livelihoods, or nature).	• Value Chain Intervention Guidance for supporting credible scope 3 claims (see Barry Callebaut and Mars case study, above) • Value Change Initiative food & agriculture addendum which includes GHGP LSRG interim guidance • SBTi Net Zero Standard v2 draft includes concepts and proposals which will increase the breadth of actions companies can credibly claim. This includes the concepts of indirect mitigation and activity pools as well as more robust support for BVCM and near-term removals targets. • TNFD & SBTN provide a suite of tools and interrelated framework for companies to credibly identify their nature-related dependencies, impacts, risks & opportunities and design efforts to address them. These lay the groundwork for a broader set of credible claims companies can make for projects and impacts within and beyond their GHG footprint boundaries.
Principle 6: Efficient MRV	
Recommended Actions	**Actions Underway and Examples**
Leverage emerging MRV technologies to reduce the resource burden and increase utility of MRV for producers. Companies should take a flexible and continuous improvement approach to innovate and improve MRV to gather more accurate data over time. Support producers with MRV, including incentives for data collection and guidance on best practice. Develop MRV approach in close consultation with producers to ensure it provides them value and addresses their needs.	• MRV providers continue technology development for MRV to meet grower and buyer needs: e.g.,Agreena developing satellite and AI powered MRV, Regrow using AI and remote sensing to achieve a 98% producer satisfaction rating. • Nestlé/PUR are developing a MRV strategy to improve efficiency for smallholder producer contexts

ACTIONS FOR CIVIL SOCIETY

Principle 1: Prioritize climate impact	
Recommended Actions	**Actions Underway and Examples**
Support companies and project developers to invest in landscapes that promote FLAG sector-wide transformation, strengthen community relationships, and accelerate sustainable land use including avoiding deforestation and conversion of natural ecosystems. Support the development of a supportive environment for farmers to deliver climate outcomes (e.g., producer buy-in, adequate resources and capacity, knowledge sharing).	• AFi guidance on smallholder inclusion in ethical supply chains: guidance for companies to engage with suppliers to remedy non-compliance, support improvement, and support inclusion of smallholders. • Leveraging climate targets to drive positive impact: Proforest briefing note calling for impactful FLAG sector action, driving on the ground impact. • Scorecard for high-integrity insetting: CI and Supplier LOCT scoping potential for a scorecard for insetting projects that allows portfolio-level performance to be assessed across key project quality metrics e.g., relation to supply chain (proximity, traceability, attribution/allocation), social & environmental safeguards, benefit sharing, nature impacts, vintage, quality of GHG reduction/removal calculation (e.g., type of data and uncertainty), risk of double counting.
Principle 2: Collaborate in supply sheds & landscapes	
Recommended Actions	**Actions Underway and Examples**
Provide demonstrations and guidance on how diverse financing mechanisms can support landscape scale outcomes and enable collaboration. Collaborate with key private sector actors in landscapes to understand commercial realities and barriers to financing. Additionally, engage finance experts and economists from financial institutions to guide efforts and co-develop novel financing mechanisms to overcome barriers.	• CI Coalition for Sustainable Livelihoods: emerging initiative focused on collective action to drive economic development, reduce poverty and improve natural resource management in the Indonesian provinces of North Sumatra and Aceh. More than 130 representatives from across government, private sector, financial institutions and civil society. • WBCSD: Financing mechanisms for land-based action: guides corporate stakeholders on how to effectively scale finance in land-based interventions by providing an overview of financial mechanisms across value chain investments and beyond value chain (BVC) investments. • Proforest: Western Mato Grasso landscape initiative - In this landscape initiative, the landscape consortium is exploring carbon instruments to support the financial sustainability in a soy landscape initiative, by linking downstream goals to producer realities. • See SourceUp and LandScale for information on 50+ collective landscape initiatives.

Principle 3: Deliver shared value for people	
Recommended Actions	**Actions Underway and Examples**
Provide clear guidance on how social safeguards are applied, including through demonstration projects. Review current safeguard requirements across crediting standards and develop recommendations for standards to align on requirements and increase interoperability. Develop and disseminate frameworks and guidelines for equitable benefit sharing and project partnership approaches for within value chain projects. Demonstrate and promote implementation of holistic approaches for addressing biodiversity, water, food, health, and climate. See IPBES Nexus Assessment for more detail.	• Accountability Framework Initiative (AFI): consensus-based roadmap for achieving ethical FLAG sector supply chains that protect forests, natural ecosystems and human rights. • CI environmental and social safeguards system: policies, standards, procedures and guidance to ensure CI projects are effective, efficient and equitable. • WWF environmental and social safeguards framework: provides a common set of standards, policies, planning and implementation mechanisms, and compliance systems that govern how WWF activities on-the-ground are carried out. • CI Principles for Investment in Natural Climate Solutions: commitment that all Natural Climate Solutions projects and programs will equitably benefit people.

Principle 4: Deliver positive outcomes for nature	
Recommended Actions	**Actions Underway and Examples**
Provide clear guidance on how environmental safeguards are applied, including through demonstration projects. Review current safeguard requirements across crediting standards and develop recommendations for standards to align on requirements and increase interoperability. Provide clear guidance and approaches for effective integration of carbon and non-carbon outcomes. This includes mapping actions which contribute to joint carbon, nature, biodiversity outcomes, and identifying 'risky' interventions where care is needed to avoid unintended consequences in carbon projects. Prioritize deforestation and conversion as cost-effective options to combat emissions and nature degradation in agricultural supply chains. Demonstrate and promote implementation of holistic approaches for addressing biodiversity, water, food, health, and climate. See IPBES Nexus Assessment for more detail.	• Conservation International environmental and social safeguards system: policies, standards, procedures and guidance to ensure CI projects are effective, efficient and equitable. • WWF environmental and social safeguards framework: provides a common set of standards, policies, planning and implementation mechanisms, and compliance systems that govern how WWF activities on-the-ground are carried out. • Conservation International Nature Credit Markets: strategy towards achieving high-integrity, equitable and durable nature credit markets. • Verra Nature Crediting Framework: concepts and core principles for activities leading to biodiversity outcomes and the generation of Nature Credits, along with methodological steps for quantifying biodiversity outcomes.

Principle 5: Credible claims	
Recommended Actions	**Actions Underway and Examples**
Continue to work with companies to bridge GHG accounting limitations while encouraging immediate & scaled investment in impactful projects. Provide guidance to companies on communicating claims and impact through projects, including how to assess and communicate non-GHG impacts. Support the development of accounting and attribution methods for nature and people impacts. Demonstrate the business case for investment in nature and people alongside climate, despite gaps in frameworks. Collective engagement in advocacy and lobbying standard setters to expand traceability requirements and boundary conditions, enabling mechanisms for companies to claim overall landscape impact of an intervention.	• WBCSD: Financing mechanisms for land based action (as above). • WBCSD: Tackling Scope 3 emissions in Agricultural and Food value chains. • Carbon crediting standards are increasingly recognizing the need to recognize holistic impacts. For example, the Ecosystem Restoration Standard incorporates ecological recovery and livelihoods as core pillars to its standard alongside carbon, not just as co-benefits.
Principle 6: Efficient MRV	
Recommended Actions	**Actions Underway and Examples**
Develop guidance for MRV which serves needs across the whole supply chain, while ensuring appropriate compensation and remuneration for producers.	• WBCSD Scope 3 Data MRV Guidance for Agrifood: support businesses in navigating the emerging world of MRV for agri-food scope 3 GHG accounting through consistent methods, data and tools. • IDH Central Highlands Vietnam landscape program supported development of additional modules for the Cool Farm Tool to enable ongoing SBTi/GHGP-aligned assessment of GHG emissions for coffee supply chains (adding new functionalities on LUC, removals, & post-farm emissions).

ACTIONS FOR STANDARD SETTERS AND GUIDANCE DEVELOPERS

Principle 1: Prioritize climate impact	
Recommended Actions	**Actions Underway and Examples**
Align on a clear set of quality attributes for defining a 'good' carbon intervention (whether within or beyond the value chain) and operationalize these quality attributes in reporting mechanisms. These quality attributes include value chain association, accounting approach and quality of action attributes (social and environmental safeguards, benefit sharing, nature impacts, etc.). Continue to encourage the adoption of deforestation- and conversion-free targets and support action to reduce these activities.	• AIM platform is testing their value chain association test which will help to clearly define boundaries for "near value chain mitigation" • SBTi Net Zero Standard v2 draft includes concepts and proposals which will increase the breadth of actions companies can credibly claim. This includes the concepts of indirect mitigation and activity pools as well as more robust support for BVCM and near-term removals targets. • Verra's Scope 3 Standard Program is developing comprehensive rules, requirements and safeguards for high-quality value chain interventions.
Principle 2: Collaborate in supply sheds & landscapes	
Recommended Actions	**Actions Underway and Examples**
Develop clear incentives and attribution structures for collective investment by companies, and other actors (including the public sector) in shared sourcing regions/supply sheds. These mechanisms should manage the risks of collective investment (stranded assets, double counting, and free-riders) and support landscape-level outcomes. Provide definitions on size and boundaries of supply sheds/sourcing regions to support collaboration and investment, as well as revised proximity requirements in collaborative approaches. Provide guidance on the allowed vintage of projects and on the amount of detail or data that must be available to claim benefits. Incorporate progressive data quality scoring to allow companies to disclose the data granularity used for GHG accounting and start transparently claiming outcomes while improving data quality over time	• VCI guidance is clarifying GHG accounting and claim allocation approaches for supply shed investments. • GHGP LSRG will clarify sourcing region/supply shed investments claims (expected in 2025). • Science-based Targets for Nature (SBTN) Land targets require supporting landscape initiatives including engagement with suppliers across shared sourcing regions. • ISEAL guidance on attributing claims of landscape initiatives: several areas of guidance for landscape level claims, including how to deliver shared value for a wide range of stakeholders from landscape projects. • Gold Standard guidance on collective action claims Gold Standard is working with partners to enable companies to invest in high-value landscapes both within and beyond the technical boundaries their value chains, as defined by the Greenhouse Gas Protocol. • Verra's Scope 3 Standard Program includes infrastructure and safeguards to prevent stranded assets, double counting and free-rider risks, and is designed for co-investment in large-scale value chain interventions.

Principle 3: Deliver shared value for people	
Recommended Actions	**Actions Underway and Examples**
Corporate GHG accounting and target-setting standards and regulations (e.g., GHGP, SBTi, EU regulation) build on the work of carbon crediting standards (e.g., Verra, Gold Standard) to make social safeguards mandatory for all projects. Integrate requirements for benefit sharing and rights to claim, ensuring long term value and durability of projects.	• SBTN stakeholder engagement guidance provides guidance for companies engaging in landscape engagement targets to appropriately include and engage with local communities in projects. • Gold Standard Safeguarding Principles and Requirements: provides project assessment methods against SDG aligned safeguard principles. • Some credit standards include prescribed benefit sharing approaches (e.g., Plan Vivo, Social Carbon) • WWF-UK and Nature-based Insights briefing paper: Delivering More By Insetting Through Nature-Based Solutions.
Principle 4: Deliver positive outcomes for nature	
Recommended Actions	**Actions Underway and Examples**
Corporate GHG accounting and target-setting standards and regulations (e.g., GHGP, SBTi, EU regulation) build on the work of carbon crediting standards (e.g., Verra, Gold Standard) to make environmental safeguards mandatory for all projects. Safeguard approaches should ensure environmental integrity and improve granularity of nature-related recommendations to address context specific challenges. SBTi and SBTN work together to integrate carbon and nature requirements, including spatial alignment in impact identification, accounting and reporting. A key area for potential synergies between the frameworks is the common goal to combat deforestation and conversion.	• Nature crediting frameworks such as Verra's nature crediting framework are being developed to enable project proponents to quantify biodiversity benefits and measure nature-related outcomes. • Standards such as Verra CCB provide assurance that projects are delivering social and nature-related benefits, alongside carbon. • [WWF-UK & Nature-based Insights briefing paper included above]

Principle 5: Credible claims	
Recommended Actions	**Actions Underway and Examples**
Develop accounting methods which address additionality, durability and safeguards, guided by the latest scientific understanding. This included accounting methods for GHG and non-GHG outcomes. Develop accounting methods to facilitate new intervention boundaries which include natural land boundaries (e.g., watersheds) as well as reporting boundaries.	• GHGP LSRG (expected in 2025): expected to clarify boundaries of sourcing region. • Verra's Scope 3 Standard Program has developed guidance for the adaptation of carbon credit methodologies and integration of intervention-specific data for company emissions accounting. • SBTi's Net Zero Standard v2.0 draft offers potential incentives for "near value chain" mitigation via incorporation of supply pools and indirect mitigation and increased role for near-term removals, and Beyond Value Chain Mitigation to address ongoing emissions.
Principle 6: Efficient MRV	
Recommended Actions	**Actions Underway and Examples**
Adapt requirements to recognize the challenges and opportunities of digital MRV (dMRV), ensuring the readiness of platforms and standards requirements and encouraging immediate action and continuous improvement in MRV over time.	• Verra's Scope 3 Standard Program will be Verra's first fully digitized program and will include novel approaches to monitoring parameters (such as biological carbon stocks) that are challenging to measure directly over short timeframes required for company emissions reporting. • Gold Standard is evaluating the opportunities and challenges of switching to d-MRV and collaborating to include new dMRV methodologies in standards. • Social Carbon have released the first insetting standard for consultation, which includes digital project development. dMRV is already standard for the framework.

Appendix 1: Additional detail on the scope of this work

This work focuses on the Forestry, Land use & Agriculture (FLAG) sector.
"Insetting" and "within value chain mitigation" are both used to describe GHG mitigation interventions across all sectors. This work is focused exclusively on the FLAG sector (as defined in the SBTi FLAG guidance) but does consider some actions that are likely outside of what is currently countable towards SBTi FLAG targets (as is discussed below).

This work considers GHG mitigation interventions within production landscapes that deliver impacts for people and nature. This includes interventions both within and beyond GHG accounting boundaries for attribution, allocation, traceability and proximity.
The actions or impacts which the term "insetting" is used to describe vary between standards and frameworks. Four key dimensions determining what actions are considered *within* the value chain of a company are attribution, allocation, traceability and proximity (see Appendix 3 for detailed definitions). Attribution and allocation refer to how carbon outcomes and claims of a project are partitioned across the goods the project relates to, e.g., how carbon outcomes are claimed if only sourcing a single crop in a wider rotation or sourcing one of two co-products. Traceability refers to the level of specificity a company knows regarding where and how their procured product in the supply chain was produced or transformed. For example, in an agricultural context, a company may have traceability to the production plot, farm, sourcing region, country, or only to the global region. Proximity relates to how close the intervention is to the production of the good sourced by a company. For example, an intervention could cause impacts on-plot, on-farm but on a different part than produces the good, off-farm within the production landscape (e.g., within the same state/province/municipality), or outside the production landscape (e.g., in a different country).

Under the draft GHGP LSRG, scope 3 land management removals interventions are only 'countable' if traceable to at least the sourcing region (one or more first point(s) of aggregation), and are located on the land management unit (i.e., on farm).[25] Additionally, companies can only claim outcomes attributed and allocated to the final product they purchase, regardless if the crop is grown in the same field with other crops, as part of a multi-year crop rotation, or is one of multiple co-products. These requirements can be a challenge for the food and agriculture sector, where traceability is limited, supply chains are dynamic, and production landscapes are mosaic and interconnected. Other actors have sought to address some of these challenges through expanding flexibility in traceability requirements (e.g. AIM platform, Value Change Initiative), and establishing standards to incentivize and clarify claims for interventions at the landscape scale (e.g., SBTN Land target, ISEAL[26]). SBTi's Net Zero Standard v2.0 draft provides some changes and concepts which increase flexibility, including supply pools, indirect mitigation, near-term removals targets, and recognition of Beyond Value Chain Mitigation. In this report, we consider both interventions which are and are not currently 'countable' towards a company's scope 3 inventory and target but deliver impact for climate, people, and nature on-farm and within the production landscape.

[25] Other mitigation activities are countable with less traceability: Land use change (LUC) can be countable across the whole landscape to jurisdictional level if a company uses statistical land use change (sLUC) as their quantification method. Land management emissions reductions can be allocated to products if traceable to the jurisdiction (GHGP defined).
[26] ISEAL 2023, Effective company claims about landscape investments and actions, Landscape and Jurisdictional Practitioner Community - Joint Position Paper, Link. Note, ISEAL open call for comments on chain of custody models.

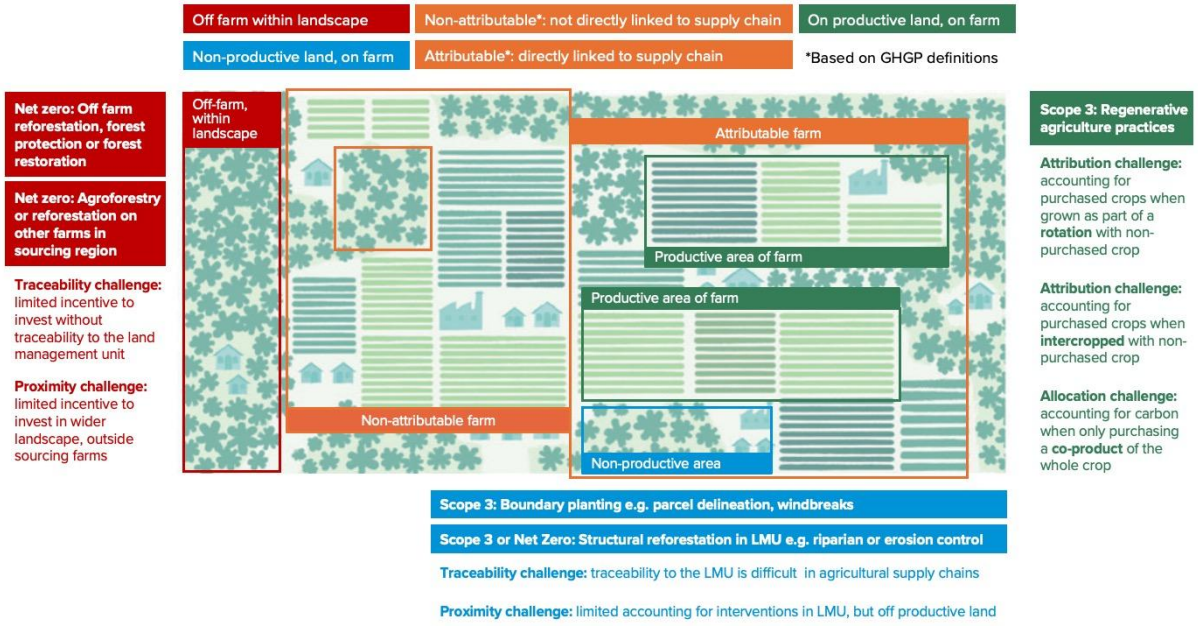

Figure 7: Activities in scope under the definition of insetting used in this report, including those which are countable towards scope 3 (within value chain mitigation), those which are only currently countable as BVCM or neutralization targets (labeled net zero), and current challenges with allocation and attribution. A landscape mosaic of interventions promotes more significant and relevant impacts for local ecosystems and communities. Adapted from Proforest (2019) and PUR (2024).

This work considers projects & programs that use both intervention and inventory accounting approaches for quantification of GHG impacts.

Intervention accounting methods underpin all carbon crediting schemes in the voluntary carbon markets. These methodologies can be used to measure and track the impact of insetting projects, generating a of "insetting unit" that is very similar to a carbon credit. It remains unclear when and how intervention accounting (aka. project accounting) can be applied to scope 3 corporate GHG footprints. The GHGP LSRG (expected in late 2025) and SBTi's update Net Zero Standard (expected early 2026) will likely offer some clarity in the short-term while and the GHGP's Actions and Market Instruments (AMI) guidance will further clarify accounting in the long-term (expected in 2028).

Inventory accounting methods underpin corporate GHG accounting and target setting aligned to SBTi's scope 1, 2, & 3 target-setting requirements. These methods can be used to measure the impact of insetting projects by translating project impacts into an emissions factor which can feed directly into supply chain partner scope 3 corporate GHG footprints.

This work aims to encourage the integration of nature, people, and resilience into corporate climate strategies.

Within value chain mitigation projects are designed to deliver against corporate climate mitigation targets. However, there is increasing recognition of the potential for insetting to support multifunctional landscape and supply chain outcomes, including improved climate resilience. Interventions designed with "carbon mitigation tunnel vision" may miss out on these holistic outcomes or, worse, risk negatively impacting people and nature or threatening the reliance of communities, ecosystems, and supply chains. This work aims to encourage the integration of nature, people, and resilience into corporate climate strategies.

The current focus on mitigation is largely due to the more mature landscape of climate mitigation frameworks and policies, including increasing regulatory requirements for climate-related disclosures.[27] Frameworks to measure and manage the non-GHG impacts of companies' actions are gaining traction. TCFD has been embedded into key reporting frameworks to address climate-risk related disclosures, and its corollaries for nature and social impacts are close behind, including TNFD for nature-related disclosures, SBTN for nature-related target setting, and the newest TISFD for social-related disclosures. Solidification and uptake of these frameworks will further incentivize multifaceted insetting interventions. While many climate mitigation actions, particularly Nature-based solutions (NbS) and Natural-climate solutions (NCS), have potential to deliver multifunctional benefits for people, nature and climate, additional work is needed to demonstrate actions have greatest potential for which outcomes, and in which contexts.

[27] Jurisdictions including Australia, Brazil, California, EU, Hong Kong, Japan, New Zealand, Singapore, UK, USA have adopted TCFD aligned climate disclosure regimes. (NRF 2024, Link)

Appendix 2: Methodology

The six insetting principles were built from the three Proforest principles for transformation of the FLAG sector. The principles have been designed in close collaboration with an Advisory Group, led by Conservation International and including partners from the Environmental Defense Fund, IDH Trade, International Platform for Insetting, Proforest, The Nature Conservancy and World Business Council for Sustainable Development. In addition, several additional organizations and individuals made significant contributions, as listed in the Acknowledgements section. These organizations have been consulted and provided feedback at regular stages throughout the principle's development, via online group consultations, one-to-one discussions, and written feedback.

Over the course of eight months, we engaged more than 80 stakeholders and received input from more than 40 diverse organizations, including companies, civil society organizations, project developers, standards and guidance developers, and representatives of producers and Indigenous People and Local Communities. We collected stakeholder data through surveys with companies and project developers, and interviews with standards and guidance developers and representatives of Indigenous People and Local communities. Engagement focused on existing contacts of Conservation International, 3Keel and the advisory group but remained open to any interested stakeholders. There was not a formal open call for input beyond the group involved.

Stakeholder engagement was supplemented with in depth desk review of key standards and guidance for insetting, to understand the role of frameworks in motivating insetting activities, opportunities and barriers for frameworks to support high integrity insetting, and to map how different frameworks are defining insetting in relation to key framework requirements. Table 3 includes a full list of frameworks included in the review. The principles were further developed through feedback from a workshop held at Climate Week New York City 2024, which involved representatives from NGOs, standards, & implementors. They have been subsequently reviewed and revised through several rounds of stakeholder feedback from each stakeholder group.

Table 3: A full list of frameworks included in the review

Framework	Type
Taskforce on Climate Related Financial Disclosures (TCFD)	Voluntary disclosure frameworks
Taskforce on Nature Related Financial Disclosures (TNFD)	
Taskforce on Inequality and Social-related Financial Disclosures (TISFD)	
Corporate Sustainability Reporting Directive (CSRD)	Regulatory disclosure
US Securities and Exchange Commission (US SEC)	
Science Based Targets for Nature (SBTN)	Target setting guidance
Science Based Targets Initiative (SBTi)	
Greenhouse Gas Protocol Land Sector and Removals Guidance (GHGP LSRG)	GHG accounting guidance
Value Change Initiative (VCI) guidance	
AIM Platform	Carbon credit programs and standards
Verra Scope 3 Standard	
Verra Climate, Community and Biodiversity (CCB) standard	
SustainCERT	
Voluntary carbon markets integrity initiative (VCMI)	
Gold Standard	
Social Carbon Draft Insetting Framework	
Fair Credits Standard	
Ecosystem Restoration Standard	

Appendix 3: Glossary of key terms

Term	Definition
Allocation	Allocation is the process of partitioning GHG emissions or removals from a single system among its various outputs. Allocation is necessary when a single system produces multiple outputs and GHG data is only quantified for the entire system as a whole. In such a case, emissions or removals from the shared system need to be allocated (divided between) the various outputs (GHGP LSRG part 2 p23). In the context of this report and to align with language from Verra's draft Scope 3 Standard, *allocation is used to refer to partitioning of GHG emissions/removals between different co-products that come from a single crop.*
Attribution	Attribution refers to the process of assigning responsibility for GHG emissions or reductions to a specific entity or activity. Inventory methods in GHG accounting correspond to attributional methods in life cycle assessments. In the context of this report and to align with language from Verra's draft Scope 3 Standard, *attribution is used to refer to partitioning of GHG emissions/removals between different crops that come from a single land management unit (eg. farm).*
Beyond Value Chain Mitigation (BVCM)	BVCM is a mechanism through which companies can accelerate the global net-zero transformation by going above and beyond their science-based targets. BVCM is defined as "mitigation action or investment that takes place outside of an organization's value chain. This includes activities that avoid or reduce GHG emissions, and those that remove and store GHGs from the atmosphere. The purchase of high-quality carbon credits beyond a company's value chain is an example of BVCM." (SBTi, Corporate Net Zero Standard 2024).
Carbon Credit	A tradeable unit issued by a carbon crediting program/standard that represents a verified reduction or removal of GHGs from the atmosphere equivalent to one metric tonne of CO_2e. Credible carbon credits are uniquely serialized, issued, tracked, and cancelled or retired by means of an electronic registry.
Carbon offsetting	Carbon offsetting is a carbon trading mechanism that enables entities to compensate (offset) greenhouse gas emissions by investing in projects that reduce, avoid, or remove emissions elsewhere. One carbon credit represents a reduction, avoidance or removal of one metric tonne of carbon dioxide or its carbon dioxide-equivalent (CO_2e).
Compliance carbon markets	Compliance carbon markets are regulated by mandatory national, regional, or international carbon reduction frameworks and are usually aimed at high-emitting sectors such as iron and steel producers, oil refineries, power generators, airlines, and processing companies.

Indigenous People	Distinct groups of people who satisfy any of the more commonly accepted definitions* of Indigenous Peoples, which consider (among other factors) whether the collective: has pursued its own concept and way of human development in a given socioeconomic, political, and historical context; has tried to maintain its distinct group identity, languages, traditional beliefs, customs, laws and institutions, worldviews, and ways of life; has at one time exercised control and management of the lands, natural resources, and territories that it has historically used and occupied, with which it has a special connection, and upon which its physical and cultural survival typically depends; self-identifies as Indigenous Peoples; and/or descends from populations whose existence pre-dates the colonization of the lands within which it was originally found or of which it was then dispossessed. (Accountability Framework Initiative)
Insetting	Insetting projects are land management and conservation interventions within or closely associated with a company's value chain that generates greenhouse gas emission reductions and carbon storage. High-integrity insetting creates positive impacts for, and improves resilience of, companies, communities, landscapes and ecosystems (adapted from Abatable / IPI 2023). Some use the term 'insetting' to describe non-FLAG actions, but this work is focused exclusively on the FLAG sector (see Section 4 for further detail)
Insetting Credit	Inset credits are generated from projects that reduce emissions or increase removals within the reporting company's value chain (using the same quantification methods as offset credits).
Just Transition	Maximizing the benefits of climate action while minimizing the negative impacts on workers and communities, addressing inequalities and promoting social inclusion (Grantham Research Institute. "What is the Just Transition and What Does it Mean for Climate")
Land Management Unit (LMU)	A land management unit (LMU) is a predefined, spatially explicit area of a given land use, managed according to a clear set of objectives according to a single land management plan. A land management unit could refer to a grazing land management unit such as ranch or pasture; an agricultural management unit such as a farm or plantation; and a forest management unit such as managed natural forest or tree plantation. (GHGP LSRG)
Landscape approach	Landscape approaches, including jurisdictional approaches, are a means of improving sustainability performance at scale through coordination, collaboration, and monitoring actions at the spatial level of a landscape. When the landscape area is defined by administrative boundaries (e.g., a subnational state) and the government is highly involved in implementation, then the landscape approach is considered a jurisdictional one. These approaches leverage partnerships between actors involved in each landscape, including companies, financial institutions, governments, associations, local communities, and indigenous peoples, to mitigate risks and maximize impacts (CDP 2022).
Landscape initiative	Landscape and jurisdictional initiatives are the on-the-ground collaborative programs to set common goals, take collective action while reconciling different interests, and monitor progress towards improving social, environmental, and economic outcomes at a landscape/jurisdictional scale. (CDP)

Local Communities	A group of interacting people living in and sharing a specific environment and place, and sharing common concerns around local facilities, services, and environment. Local communities may be legally or customarily known or designated using various terms, such as 'traditional communities.' Like Indigenous Peoples, they may use and manage land in accordance with customary tenure systems and associated rights and may depend on their land for cultural and physical survival. 'Indigenous Peoples and local communities' (IP and LCs) are often referred to together due to their similarities and often require the same processes and respect for rights of both groups, including with respect to property and the right to give or withhold free, prior, and informed consent (FPIC; see definition). (Accountability Framework Initiative)
Mitigation	Actions which reduce emissions and increase removals across the value chain (GHGP LSRG).
Monitoring, verification and reporting (MRV)	Monitoring, reporting, and verification (MRV) is a framework for monitoring and verifying greenhouse gas (GHG) emissions and reduction efforts, often to ensure compliance with regulations or voluntary initiatives (Validere, 2023).
Nature-based Solutions (NbS)	NbS are solutions to societal challenges that involve working with nature and may deliver multiple benefits for climate, people and nature. NbS is an umbrella concept for other nature-based approaches such as Natural Climate Solutions (NCS), but NCS refer explicitly to conservation, restoration, and management actions that reduce GHG emissions from ecosystems and harness their potential to store carbon. NbS vary in 3 ways: 1) cover a spectrum of interventions 2) vary in extent to which they support biodiversity 3) Differ in how much they are designed and implemented by local communities
Natural Climate Solutions (NCS)	Natural climate solutions include several crucial climate mitigation actions highlighted in the IPCC 6th assessment report including conservation, improved management and restoration of ecosystems, and improved crop and livestock management. The primary intention is to deliver climate benefits through emissions reductions but should also deliver additional benefits for people and nature.
Nature Positive Transition	Nature Positive is a global societal goal defined as halting and reversing nature loss by 2030 on a 2020 baseline, and achieving full recovery by 2050, in line with the mission of the Kunming-Montreal Global Biodiversity Framework. It means ensuring more nature in the world in 2030 than in 2020 and continued recovery after that. A Nature Positive Transition is the transformation of economies that must happen to achieve these goals (Nature Positive Initiative)
Point of aggregation	The first point of aggregation is a location that receives harvested biogenic materials from land management units for processing or distribution further down the supply chain (GHGP draft Land Sector and Removals Guidance part 1, 2022).
Producer	The owner or manager of a production unit. This includes smallholders and other individual owners/managers, corporate entities, and communities that own or manage production systems.

Producer group	A group of agricultural or forestry producers that is organized and managed to aggregate or market products, or to provide services on behalf of its producer members. Producer groups include cooperatives, producer associations, and groups managed by traders, processors or government initiatives. These groups may serve different purposes, such as collective processing and marketing of their member's products, provision of inputs and training to group members, political alignment and advocacy to advance member's interests, internal traceability and management systems to support compliance with standards or market demands (e.g. certification programs, scope 3 claims)
Proximity	How close an intervention is to the production of the goods sourced by a company. For example, an intervention could cause impacts on-plot, on-farm but on a different part than produces the good, off-farm within the production landscape (e.g., within the same state/province/municipality), or outside the production landscape (e.g., in a different country).
Sourcing Region	A sourcing region is a predefined, spatially explicit land area that supplies harvested biogenic materials to the first collection point or processing facility in a value chain (the first point of aggregation) (GHGP draft Land Sector and Removals Guidance part 1, 2022).
Supply shed	A supply shed is a concept and approach that caters to situations where a company may not be able to directly trace sourcing to a specific upstream supplier, but it is known (and can be demonstrated) that sourcing comes from a group of suppliers within a "market" from which the company sources (SustainCert, 2023). Organizations use different boundaries when defining the supply shed.
Traceability	Traceability refers to the ability of a company to identify and track activities, and information about those activities, in the value chain of the company, for processes and products both upstream and downstream of their operations (GHGP LSRG part 2, p16).
Upstream companies	A company who occupies a position in the supply chain closer to the raw material origin (e.g., trader, producers, first point of processing).
Voluntary carbon market	A marketplace that encompasses transactions of carbon credits that are not purchased with the intention to surrender into an active regulated carbon market. It includes carbon credits purchased with the intent to resell or retire to meet carbon neutral or other environmental claims (VCMI Claims Code of Practice). Voluntary markets, also known as offsetting markets, function outside of compliance markets, therefore they do not currently involve any direct government or regulatory oversight. Voluntary carbon markets are typically associated with beyond value chain mitigation activities.